EXHIBIT X

Citations to references are exemplary only and not intended to be exhaustive.
A cell with tan shading indicated content obtained from another cell
A cell with light green shading indicates a claim element that is anticipated by the reference in its column (possibly also asserted to be obvious)
A cell with light yellow shading indicates a claim element that is not asserted to be anticipated by the reference in its column but is obvious
A cell with light blue shading indicates a claim as a whole that is invalid for reasons other than §102 or §103.
A cell with gray shading indicates matter appearing in Defendants' invalidity contentions but not adopted by Dr. Shamos.
A cell with rose shading indicates an element or step that is not found in the reference

ASSERTED CLAIMS	DEPENDENCY STRUCTURE					EQUIV		AMDOCS PROPOSED CONSTRUCTIONS	OPENET PROPOSED CONSTRUCTIONS	NON-ART INVALIDITY, §101 and §112		PRIOR ART -->
										Contentions re Non-Art invalidity	Shamos Additional Opinion on Non-Art Invalidity	Contentions re prior art XaCCT systems
'065 Patent												
										Openet hereby identifies grounds of invalidity based on (1) unpatentable subject matter under 35 U.S.C. § 101; (2) indefiniteness under 35 U.S.C. § 112, second paragraph; and (3) lack of written description and enablement under 35 U.S.C. § 112, first paragraph.		Openet contends that XaCCT 3.0 anticipates all the claims of the '065 patent either expressly or inherently. The following are publications disclosing and/or suggesting the claimed inventions, and/or evidence of prior uses of machines that included all or some elements of the claimed inventions: • XaCCT, "XaCCT 3.0: Distributed Accounting and Mediation Solution for TCP/IP Networks," available at http://web.archive.org/web/19980629110120/www.xacct.com/DaSh30.html (June 1998). • PR Newswire, "XaCCT Technologies Ltd. To Make its U.S. Debut at Internet World," (Dec. 5, 1997). • XaCCT 3.0 Technical White Paper (1997). • XaCCT 3.0 Mult-Source, Multi-Layer Technology (Jun 29, 1998). • XaCCT News Release, "XaCCT Technologies Now Shipping Accounting and Reporting System for Corporate Network Resource and ISP Use" (Mar. 19, 1998). • XaCCT 2.0 and XaCCT 2.1 as described in the publications below:
												• XaCCT, XaCCT Brochure (1997). AMDOCS0005273-5278 • XaCCT, "XACCT Technologies Now Shipping Accounting and Reporting System for Corporate Network Resource and ISP Use," (Mar. 19, 1998). AMDOCS0007098-7099 • XaCCT, "XaCCT 2.1 Accounting and Reporting System for Network Resource Use," (1998). OPENET00537720 • XaCCT, "Accounting and Reporting System for Corporate Network Resource and ISF Use," (Apr. 1998). AMDOCS0007187 • XaCCT, "XaCCT Technologies Releases Accounting and Reporting System for ISP and Corporate Network Resource Use," (December 10, 1997). AMDOCS0007143-7145 • XaCCT, "Fall Internet World '97," (Mar. 12, 1997). AMDOCS0004365-4394 • XaCCT v2.0 User's Guide (AMDOCS0004487-4636)
												In light of the above prior art, viewed either alone or in combination with the prior art cited elsewhere in the document or Appendix A, Openet contends that all claims of the '065patent are anticipated, and if not anticipated, at least obvious. Openet provides the following claim charts to illustrate examples of the invalidating disclosures, teachings, and/or prior uses of XaCCT 3.0. The same analysis applies applies with respect to XaCCT 2.1 and other substantially similar prior art offerings of XaCCT and/or Amdocs.
1. A computer program product embodied on a computer readable storage medium for processing network accounting information comprising:	1P							computer readable storage medium This term appears in the preamble and no construction is required. However, to the extent this term is to be construed, it should have the following construction: "a medium for storing information in a format that can be read by a computer"	computer readable storage medium: "a medium where the program is stored in a computer readable format and is accessed."			XaCCT 3.0 processes network accounting information.

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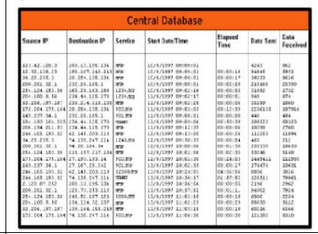
								accounting This term does not need to be construed and should be accorded its plain meaning. However, to the extent this term is to be construed, it should have the following construction: "related to a transaction"	accounting Accounting refers to tracking network usage for generating a bill.			Page 1: "The software not only captures relevant transaction details from a multitude of nodes/information sources on the network, in real-time, it also performs policy-based merge and aggregation and produces billing records, SDRs (Service Detail Records), much like the CDRs (Call Detail Records) in the telephone switch."
												Page 2: "Real-time, policy-based aggregation, enhancement and merge of data, to create Unified Network Information Records (UNIRTM), discarding redundant data." Page 3: "Merges data collected by multiple Gatherers to eliminate redundancies." Page 3: "The information on network sessions is stored in the database in the form of a table. Each field in the table represents a network session parameter. Each record represents a network session."
												Page 3:  Central Database Source IP | Destination IP | Service | Start Date/Time | Elapsed Time | Data Sent | Data Received
computer code for receiving from a first source a first network accounting record;	1a							record: "one or more fields of data treated as a unit and describing one or more transactions"	record: "an ordered set of fields"			XaCCT 3.0 receives information from multiple network sources.

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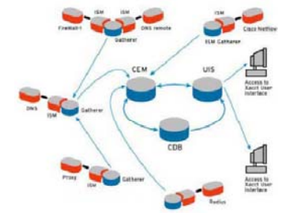
								network accounting record: "a record reflecting one or more transactions on an IP network"	network accounting record: "a record generated by a network element used to generate a bill"			Page 2: "Multiple Information Sources The XaCCT system collects network activity data from multiple Information Sources on the Network and consolidates it into Network Sessions linked to real-world entities - users, departments, and the like. Since it is not always possible to obtain all the parameters for a given network session from one network element, different pieces of information must be obtained from many different Information Sources. For example, the source and destination address for an Internet session may be available from the FireWall-1 log, while the user name, department and the destination site information may have to be obtained from a DNS server."
								first source / second source first source: "a source of network information" second source: "a source of network information of a different type than the information from the first source"	first source / second source Two distinct sources, located in different locations of a network, of network accounting information.			Page 2: "Multiple Network Layers By using a multi-layer technology, the XaCCT system provides critical information on the application and type of service used during a session. Since the impact of different applications and services on the network varies, it enables the network operators to accurately assess the costs associated with services, based on network resource consumption. For example, email vs. video."
												Page 3:  *The XaCCT System*
												Page 4: "Information Sources The XaCCT system can collect network session data from a NetFlow-enabled Cisco router, the log file of a mail server, the logging facility of a firewall, a traffic statistics table available on a switch and accessible through SNMP, a database entry accessible through the Web, an authentication server's query interface, and other network devices. By consolidating the information from all these sources, the XaCCT system can link real-world entities, such as the names of users and departments, to network activity.
												Each type of Information Source is accessed using a different method or protocol. A Gatherer accesses the Information Source using Information Source Module (ISM) for that particular Information Source. Additional Information Sources can easily be added to XaCCT 3.0. XaCCT system is designed to capture and process data from both, asynchronous or "trigger" sources and synchronous or "enhancer" sources. A router generates session triggers whereas the DNS server helps enhance the session record."

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computer code for correlating the first network accounting record with accounting information available from a second source; and	1b							correlating / correlate / correlated "associating data from multiple sources"	Correlating is indefinite. To the extent correlating is understood to one skilled in the art, it refers to associating records in a correlation database.		"correlating" is indefinite	XaCCT 3.0 correlates records received from multiple network sources.
												Page 2: Such an IP mediation system must be able to collect network usage data, produce a single service detail record (SDR), ..." Page 3-4: "To generate an aggregate CDR, the mediation system must first collect and correlate data from the various network elements. In the remote corporate user example illustrated above, the router, RADIUS server, RSVP policy manager, network management node, and routing tables each produce various usage records. The Detail Records Sidebar explains what each network element does, and the usage information produced."
												Page 3: FIGURE 2. Aggregate billing record (CDR) FIGURE 2. Aggregate billing record (CDR). Initiator customer ID / Terminator customer ID: Initiator and terminator IDs identify customer and supplier accounts within the billing system database that must be billed for the transaction. Debitor/creditor ID: Transactions can be billed to the initiator, terminator, or both depending on specific business logic or other transaction parameters. If the transaction goes beyond the boundaries of the IP provider, there may be the issue of inter-carrier settlements. This is especially true when QoS reservations span across multiple IP carriers. Initiator Location ID / Terminator location ID / Distance ID: Initiator and terminator location IDs are associated with the geographical location of transaction end-points. This information is used to produce a distance identifier, which can be used to charge differently for local, long-distance, international and inter-carrier service. Application ID: The Application ID identifies the type of application used in the transaction (e.g., web, voice, and mail). The application information can be obtained from the port numbers within the TCP/IP header (e.g., web traffic is sent on port 80), or can be obtained from the gateway or RSVP policy manager. Reserved QoS ID: QoS (i.e., traffic specification) reserved for the transaction. Outgoing bytes: Number of bytes generated by the station. Incoming bytes: Number of bytes received by the station. Start: Transaction start time. End: Transaction end time.
												Page 4: "By carefully correlating the usage records, the mediation system can derive network usage details for each network transaction." XaCCT 3.0 receives information from multiple sources.
												Page 2: "Multiple Information Sources The XaCCT system collects network activity data from multiple Information Sources on the Network and consolidates it into Network Sessions linked to real-world entities - users, departments, and the like. Since it is not always possible to obtain all the parameters for a given network session from one network element, different pieces of information must be obtained from many different Information Sources. For example, the source and destination address for an Internet session may be available from the FireWall-1 log, while the user name, department and the destination site information may have to be obtained from a DNS server."
												Page 2: "Multiple Network Layers By using a multi-layer technology, the XaCCT system provides critical information on the application and type of service used during a session. Since the impact of different applications and services on the network varies, it enables the network operators to accurately assess the costs associated with services, based on network resource consumption. For example, email vs. video."
												[See XaCCT System diagram from page 3, above.]

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computer code for using the accounting information with which the first network accounting record is correlated to enhance the first network accounting record.	1c							to enhance This term does not need to be construed and should be accorded its plain meaning. However, to the extent this term is to be construed, it should have the following construction: "to add information to or modify information in a record"	Enhancement is indefinite. To the extent the term can be construed, it refers to field enhancement, as described at Col. 11:1-14.		"enhance" is indefinite if it includes anything more than the recited steps	XaCCT 3.0 enhances two correlated records by aggregating them.
												Page 2: Such an IP mediation system must be able to collect network usage data, produce a single service detail record (SDR), ..." Page 3-4: "To generate an aggregate CDR, the mediation system must first collect and correlate data from the various network elements. In the remote corporate user example illustrated above, the router, RADIUS server, RSVP policy manager, network management node, and routing tables each produce various usage records. The Detail Records Sidebar explains what each network element does, and the usage information produced."
												Page 3: FIGURE 2. Aggregate billing record (CDR) Page 4: "By carefully correlating the usage records, the mediation system can derive network usage details for each network transaction."
												Page 5: "Data Enhancement Before being stored in the database, the data is enriched through Enhancement Procedures. Typically the information a Gatherer receives from one Information Source is not sufficient to supply all the session details to create meaningful session record. Through the Enhancement Procedures information from multiple sources on the network is combined to obtain all required session parameters. For example, the session data collected by Gatherer 1 from Information Source A contains the source IP address of a given session (like 200.201.32.1), but not the domain address of the source host, or Fully Qualified Domain Name, (such as pc17.xacct.com).
												The name of the source host can be obtained from another Gatherer (Gatherer 2) collecting information from another Information Source B - a Domain Name System (DNS). The DNS servers maintain information that matches the IP address of a computer to its corresponding Fully Qualified Domain Name (FQDN). As a result, the FQDN of the source host is added to the session record (its UNIR) and used to fill the corresponding field in the Central Database. The Enhancement Procedure can include enhancements for multiple fields. For example, the destination IP can also be used to obtain the FQDN of the destination host. The result will be used to fill yet another field in the UNIR. When all required fields are filled, the fully enhanced UNIR is sent to the CEM and then stored in the Central Database."

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												Page 6: Mediation Architecture Sidebar.
												Page 6: "The most difficult challenge in IP mediation is reducing the number of raw data records that flow through the collection system. By aggregating usage-information, the mediation system reduces record data flow considerably. However, there is a trade-off. If the system over-aggregates raw data records, the granularity of the usage information presented to the support systems may not be sufficient to offer flexible, competitive pricing models for different market segments. For example, the IP usage collection system might be configured to produce daily aggregate usage records for each user, thereby substantially reducing record flux.
												However, records ending up in the CCB will not contain the time of day when each transaction took place, therefore making it impossible to discount off-peak usage. A way to cope with this problem is to have the CCB provide business logic to the data collection system in a way that the aggregation will not reduce the granularity of billable parameters. In the above example, the business logic will demand that instead of having daily aggregation, the collection system should aggregate the records for the segments of the day that define peak and off-peak hours."
2. The computer program product embodied on a computer readable storage medium of claim 1, wherein the enhancement is based on a policy.		2										XaCCT 3.0 enhances records by aggregating them based on a policy.
												Page 3: "After the network service is provisioned, the mediation system must obtain usage details from each of the network elements, and consolidate them into an aggregate billing record (or, aggregate CDR). In the examples shown above, the aggregate CDR should contain at least the parameters illustrated in Figure 2 (other parameters may be needed to accomplish other types of billing schemes). To generate an aggregate CDR, the mediation system must first collect and correlate data from the various network elements."

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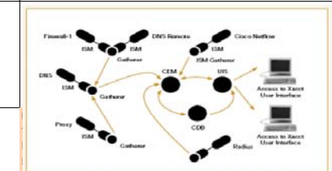
												Page 4: "The final step, however, is to consult the CCB database to add account identifiers that are meaningful to the billing system (e.g., customer, debitor, and location IDs). After incorporating the CCB information, the mediation system can forward the aggregate CDR to the backend billing system."
												Page 5: DETAIL RECORDS Sidebar DETAIL RECORDS Figure A illustrates the process by which a mediation system collects usage information from various network elements (NEs). The approach is to communicate with each NE, obtain the CDR, and forward an aggregate CDR to the billing system. In the network shown in Figure 1, the mediation system must coordinate with various network elements to capture the network transactions correlating with the corporate user's application. The CDRs generated by the NEs are discussed below:
												Page 6: Mediation Architecture Sidebar Mediation Architecture Sidebar A common mediation architecture is to distribute data-collection and provisioning mechanisms among the network elements and support systems. For example, Figure 4 shows the distributed architecture of an IP mediation system developed by XACCT Technologies. The central event manager coordinates, manages, and controls the operation of the system and its related components. Accounting records are sent to the CEM and are stored in a database, sent to another CEM, or passed to the CCB. A hierarchy of CEMs can be achieved in order to centralize billing information in one database, and distribute detailed customer care information in remote databases. Gathering agents collect network session data from the individual information sources (e.g., RADIUS server, nettlow router, and H.323 gateway). The Gatherers are strategically located close to the information source(s) to minimize traffic on the network. Typically, Gatherers are hierarchically organized, sending network transaction data either to other gatherers for further aggregation, or directly to the CEM. Using special interfaces, called information source modules (ISMs), Gatherers access an information source without interfering with its operation. Gatherers capture and process data from both asynchronous (or "trigger" sources) and synchronous (or "enhancer") sources. For example, a router generates session triggers whereas the DNS server helps enhance the session record. Gatherers are remotely administered and controlled by the CEM.
												 receives from one information source is not sufficient to supply all the session details to create meaningful session record. Through the Enhancement Procedures information from multiple sources on the network is combined to obtain all required session parameters. For example, the session data collected by Gatherer 1 from Information Source A contains the source IP address of a given session (like 200.201.32.1), but not the domain address of the source host, or Fully Qualified Domain Name, (such as pc17.xacct.com). The name of the source host can be obtained from another Gatherer (Gatherer 2) collecting information from another Information Source B - a Domain Name System (DNS). The DNS servers maintain information that matches the IP address of a computer to its corresponding Fully Qualified Domain Name (FQDN). As a result, the FQDN of the source host is added to the session record (its UNIR) and used to fill the corresponding field in the Central Database. The Enhancement Procedure can include enhancements for multiple fields. For example, the destination IP can also be used to obtain the FQDN of the destination host. The result will be used to fill yet another field in the UNIR. When all required fields are filled, the fully enhanced UNIR is sent to the CEM and then stored in the Central Database."
												Page 6: "For example, when a user dials into the network, the remote access server may query a RADIUS server in order to permit a login or access to restricted information. Based on CCB request, the IP mediation system must also have the capability to add, remove, and update user-related information at the RADIUS server in real time. Likewise, since a router contacts a QoS policy server in order to grant QoS reservation for a given user session, the mediation system must be able to inject user-related information to the QoS policy server. The same applies for a mail, web server, and firewall that have user-related databases granting access privileges."

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3. The computer program product embodied on a computer readable storage medium of claim 2, wherein the accounting information includes parameters and wherein the using comprises adding at least one parameter from the accounting information to the first network accounting record.			3									XaCCT 3.0 adds parameters from one record to another when aggregating records.
												Page 2: "Fortunately, today's convergent billing systems from Saville, Amdocs, Kenan, and Portal are capable of providing usage-based billing support for the pricing structure discussed above. What is missing is a mediation system interfacing the IP infrastructure to OSS, BSS and CCB systems. Such an IP mediation system must be able to collect network usage data, produce a single service detail record (SDR) for back-end billing systems, automate service provisioning, link billing and customer care systems to network authentication, authorization and QoS systems, and seamlessly integrate with the carrier's CCB."
												[See Page 3: FIGURE 2. Aggregate billing record (CDR), above.]
												Page 3: "After the network service is provisioned, the mediation system must obtain usage details from each of the network elements, and consolidate them into an aggregate billing record (or, aggregate CDR). In the examples shown above, the aggregate CDR should contain at least the parameters illustrated in Figure 2 (other parameters may be needed to accomplish other types of billing schemes)."
												Page 4: "The final step, however, is to consult the CCB database to add account identifiers that are meaningful to the billing system (e.g., customer, debitor, and location IDs). After incorporating the CCB information, the mediation system can forward the aggregate CDR to the backend billing system. The aggregate billing record can now be rated and billed by the BSS depending on the type of contract with the customer."

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												Page 5: "Figure A illustrates the process by which a mediation system collects usage information from various network elements (NEs). The approach is to communicate with each NE, obtain the CDR, and forward an aggregate CDR to the billing system."
												Page 6: "A way to cope with this problem is to have the CCB provide business logic to the data collection system in a way that the aggregation will not reduce the granularity of billable parameters." [See page 6, Mediation Architecture Sidebar, above.]
4. The computer program product embodied on a computer readable storage medium of claim 3, wherein the accounting information is in the form of a second network accounting record.				4								XaCCT 3.0 receives information from multiple network sources.
												Page 2: "Multiple Information Sources The XaCCT system collects network activity data from multiple Information Sources on the Network and consolidates it into Network Sessions linked to real-world entities - users, departments, and the like. Since it is not always possible to obtain all the parameters for a given network session from one network element, different pieces of information must be obtained from many different Information Sources. For example, the source and destination address for an Internet session may be available from the FireWall-1 log, while the user name, department and the destination site information may have to be obtained from a DNS server."
												Page 2: "Multiple Network Layers By using a multi-layer technology, the XaCCT system provides critical information on the application and type of service used during a session. Since the impact of different applications and services on the network varies, it enables the network operators to accurately assess the costs associated with services, based on network resource consumption. For example, email vs. video." [See XaCCT System diagram from page 3, above.]
												Page 4: "Information Sources The XaCCT system can collect network session data from a NetFlow-enabled Cisco router, the log file of a mail server, the logging facility of a firewall, a traffic statistics table available on a switch and accessible through SNMP, a database entry accessible through the Web, an authentication server's query interface, and other network devices. By consolidating the information from all these sources, the XaCCT system can link real-world entities, such as the names of users and departments, to network activity.
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7. A method of processing network accounting information comprising:	7P					Method claim corresponding to claim 1		accounting This term does not need to be construed and should be accorded its plain meaning. However, to the extent this term is to be construed, it should have the following construction: "related to a transaction"	accounting Accounting refers to tracking network usage for generating a bill.			XaCCT 3.0 processes network accounting information.
												Page 1: "The software not only captures relevant transaction details from a multitude of nodes/information sources on the network, in real-time, it also performs policy-based merge and aggregation and produces billing records, SDRs (Service Detail Records), much like the CDRs (Call Detail Records) in the telephone switch."
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												[See page 3 Central Database diagram, above]
receiving from a first source a first network accounting record;	7a					Logically '065 1a		record: "one or more fields of data treated as a unit and describing one or more transactions"	record: "an ordered set of fields"			XaCCT 3.0 receives information from multiple network sources.
								network accounting record: "a record reflecting one or more transactions on an IP network"	network accounting record: "a record generated by a network element used to generate a bill"			Page 2: "Multiple Information Sources The XaCCT system collects network activity data from multiple Information Sources on the Network and consolidates it into Network Sessions linked to real-world entities - users, departments, and the like. Since it is not always possible to obtain all the parameters for a given network session from one network element, different pieces of information must be obtained from many different Information Sources. For example, the source and destination address for an Internet session may be available from the FireWall-1 log, while the user name, department and the destination site information may have to be obtained from a DNS server."
								first source / second source first source: "a source of network information" second source: "a source of network information of a different type than the information from the first source"	first source / second source Two distinct sources, located in different locations of a network, of network accounting information.			Page 2: "Multiple Network Layers By using a multi-layer technology, the XaCCT system provides critical information on the application and type of service used during a session. Since the impact of different applications and services on the network varies, it enables the network operators to accurately assess the costs associated with services, based on network resource consumption. For example, email vs. video." [See XaCCT System diagram from page 3, above.]
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ASSERTED CLAIMS	DEPENDENCY STRUCTURE					EQUIV		AMDOCS PROPOSED CONSTRUCTIONS	OPENET PROPOSED CONSTRUCTIONS	NON-ART INVALIDITY, §101 and §112		PRIOR ART -->
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correlating the first network accounting record with accounting information available from a second source; and	7b					Logically '065 1b		correlating / correlate / correlated "associating data from multiple sources"	Correlating is indefinite. To the extent correlating is understood to one skilled in the art, it refers to associating records in a correlation database.		"correlating" is indefinite	XaCCT 3.0 correlates records received from multiple network sources. Page 2: Such an IP mediation system must be able to collect network usage data, produce a single service detail record (SDR), ..." Page 3-4: "To generate an aggregate CDR, the mediation system must first collect and correlate data from the various network elements. In the remote corporate user example illustrated above, the router, RADIUS server, RSVP policy manager, network management node, and routing tables each produce various usage records. The Detail Records Sidebar explains what each network element does, and the usage information produced." [See Page 3: FIGURE 2. Aggregate billing record (CDR), above.] Page 4: "By carefully correlating the usage records, the mediation system can derive network usage details for each network transaction." XaCCT 3.0 receives information from multiple sources. Page 2: "Multiple Information Sources The XaCCT system collects network activity data from multiple Information Sources on the Network and consolidates it into Network Sessions linked to real-world entities - users, departments, and the like. Since it is not always possible to obtain all the parameters for a given network session from one network element, different pieces of information must be obtained from many different Information Sources. For example, the source and destination address for an Internet session may be available from the FireWall-1 log, while the user name, department and the destination site information may have to be obtained from a DNS server." Page 2: "Multiple Network Layers By using a multi-layer technology, the XaCCT system provides critical information on the application and type of service used during a session. Since the impact of different applications and services on the network varies, it enables the network operators to accurately assess the costs associated with services, based on network resource consumption. For example, email vs. video." [See XaCCT System diagram from page 3, above.] Page 4: "Information Sources The XaCCT system can collect network session data from a NetFlow-enabled Cisco router, the log file of a mail server, the logging facility of a firewall, a traffic statistics table available on a switch and accessible through SNMP, a database entry accessible through the Web, an authentication server's query interface, and other network devices. By consolidating the information from all these sources, the XaCCT system can link real-world entities, such as the names of users and departments, to network activity. Each type of Information Source is accessed using a different method or protocol. A Gatherer accesses the Information Source using Information Source Module (ISM) for that particular Information Source. Additional Information Sources can easily be added to XaCCT 3.0. XaCCT system is designed to capture and process data from both, asynchronous or "trigger" sources and synchronous or "enhancer" sources. A router generates session triggers whereas the DNS server helps enhance the session record."

ASSERTED CLAIMS	DEPENDENCY STRUCTURE					EQUIV		AMDOCS PROPOSED CONSTRUCTIONS	OPENET PROPOSED CONSTRUCTIONS	NON-ART INVALIDITY, §101 and §112		PRIOR ART -->
										Contentions re Non-Art invalidity	Shamos Additional Opinion on Non-Art Invalidity	Contentions re prior art XaCCT systems
using the accounting information with which the first network accounting record is correlated to enhance the first network accounting record.	7c					Logically '065 1c		to enhance This term does not need to be construed and should be accorded its plain meaning. However, to the extent this term is to be construed, it should have the following construction: "to add information to or modify information in a record"	Enhancement is indefinite. To the extent the term can be construed, it refers to field enhancement, as described at Col. 11:1-14.		"enhance" is indefinite if it includes anything more than the recited steps	XaCCT 3.0 enhances two correlated records by aggregating them.
												Page 2: Such an IP mediation system must be able to collect network usage data, produce a single service detail record (SDR), ..." Page 3-4: "To generate an aggregate CDR, the mediation system must first collect and correlate data from the various network elements. In the remote corporate user example illustrated above, the router, RADIUS server, RSVP policy manager, network management node, and routing tables each produce various usage records. The Detail Records Sidebar explains what each network element does, and the usage information produced."
												Page 3: FIGURE 2. Aggregate billing record (CDR) Page 4: "By carefully correlating the usage records, the mediation system can derive network usage details for each network transaction."
												Page 5: "Data Enhancement Before being stored in the database, the data is enriched through Enhancement Procedures. Typically the information a Gatherer receives from one Information Source is not sufficient to supply all the session details to create meaningful session record. Through the Enhancement Procedures information from multiple sources on the network is combined to obtain all required session parameters. For example, the session data collected by Gatherer 1 from Information Source A contains the source IP address of a given session (like 200.201.32.1), but not the domain address of the source host, or Fully Qualified Domain Name, (such as pc17.xacct.com). The name of the source host can be obtained from another Gatherer (Gatherer 2) collecting information from another Information Source B - a Domain Name System (DNS). The DNS servers maintain information that matches the IP address of a computer to its corresponding Fully Qualified Domain Name (FQDN). As a result, the FQDN of the source host is added to the session record (its UNIR) and used to fill the corresponding field in the Central Database. The Enhancement Procedure can include enhancements for multiple fields. For example, the destination IP can also be used to obtain the FQDN of the destination host. The result will be used to fill yet another field in the UNIR. When all required fields are filled, the fully enhanced UNIR is sent to the CEM and then stored in the Central Database." Page 6: Mediation Architecture Sidebar.
												Page 6: "The most difficult challenge in IP mediation is reducing the number of raw data records that flow through the collection system. By aggregating usage-information, the mediation system reduces record data flow considerably. However, there is a trade-off. If the system over-aggregates raw data records, the granularity of the usage information presented to the support systems may not be sufficient to offer flexible, competitive pricing models for different market segments. For example, the IP usage collection system might be configured to produce daily aggregate usage records for each user, thereby substantially reducing record flux. However, records ending up in the CCB will not contain the time of day when each transaction took place, therefore making it impossible to discount off-peak usage. A way to cope with this problem is to have the CCB provide business logic to the data collection system in a way that the aggregation will not reduce the granularity of billable parameters. In the above example, the business logic will demand that instead of having daily aggregation, the collection system should aggregate the records for the segments of the day that define peak and off-peak hours."

ASSERTED CLAIMS	DEPENDENCY STRUCTURE					EQUIV		AMDOCS PROPOSED CONSTRUCTIONS	OPENET PROPOSED CONSTRUCTIONS	NON-ART INVALIDITY, §101 and §112		PRIOR ART -->
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13. A system for collecting data from network entities for a data consuming application, comprising:	13P							network entity: "a source of data on an IP network"	network entity: plain and ordinary meaning (or alternatively, a network layer)	Claims 13-18 of the '065 patent are invalid as indefinite under §112, second paragraph, for attempting to claim both a system and a method of using that using that system. Claim 13 is directed to A *system* for collecting data from network entities for a data consuming application, comprising: a plurality of data collectors to receive information . . . and *to produce* records based on the information . . . an enhancement component that *augments* data in one of the records produced by one of the plurality of data collectors with data from a different one of the records produced by another of the plurality of data collectors.	"data consuming application" is indefinite	XaCCT 3.0 collects data from a network.
									Data consuming application is indefinite.	On its face, claim 13 claims both a system and a method of producing records and augmenting records with data. Because claim 13 claims both a system and a method in the same claim, it is indefinite under §112(2) and therefore invalid.		Page 1: "The software not only captures relevant transaction details from a multitude of nodes/information sources on the network, in real-time, it also performs policy-based merge and aggregation and produces billing records, SDRs (Service Detail Records), much like the CDRs (Call Detail Records) in the telephone switch."
												Page 2: "The XaCCT system collects network activity data from multiple Information Sources on the Network and consolidates it into Network Sessions linked to real-world entities - users, departments, and the like." Page 2: "Wide range of Information Source Modules (ISMTM) for capturing accounting data from virtually any Network Element/node, such as Authentication servers (RADIUS, TACACS+), Routers and Switches (Cisco NetFlow, Cisco IOS, RMON, SNMP), Mail servers, Proxy servers, DNS, Firewalls, Internet Telephony Gateways and many others."
												Page 4 "Gatherers The Gatherers are multi-threaded lightweight smart-agents designed to run on non-dedicated hosts as background processes (with minimal strain on CPU memory, disk space, or network resources). They collect network session data from a variety of Information Sources. The Gatherers are strategically located close to the Information Sources to minimize traffic on the network. The Gatherers send the network session data either to other Gatherers to be enhanced or to the Central Event Manager to be stored in the Central Database. Each Gatherer can collect information from multiple Information Sources, allowing scaleable configuration of the collection system.

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												The Gatherers can handle critical situations such as loss of connection and restarts by storing data in an output buffer until the system is back to its normal state. The Gatherers are remotely administered and controlled by the Central Event Manager, allowing for low cost central administration and automated field upgrades to the entire XaCCT system."
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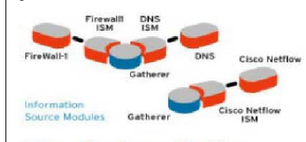
												Each type of Information Source is accessed using a different method or protocol. A Gatherer accesses the Information Source using Information Source Module (ISM) for that particular Information Source. Additional Information Sources can easily be added to XaCCT 3.0. XaCCT system is designed to capture and process data from both, asynchronous or "trigger" sources and synchronous or "enhancer" sources. A router generates session triggers whereas the DNS server helps enhance the session record."
												Page 5:  *Information Source Modules*

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												Page 5: "Data Collection The XaCCT system is capable of collecting data on every network session. The data is collected by the Gatherers from the various Information Sources, augmented by additional data from other Information Sources through Enhancement Procedures, and sent to the Central Database for storage. The XaCCT system utilizes a proprietary data format called Unified Network Information Record (UNIR).
												A UNIR includes a set of ideal parameters of a session, which may or may not be provided by the Information Source. The Information Source Modules transform the data they get from the Information Sources into UNIR format. The Central Event Manager initiates the data collecting process on startup, signaling the Gatherers to begin collecting data on network sessions. Data collection ceases when the CEM is not operational. If and when the CEM is shutdown it commands the Gatherers to stop sending network information. The data is sent to the CEM to be stored in the Central Database."
a plurality of data collectors to receive information from the network entities and to produce records based on the information, each data collector in the plurality of data collectors being associated with and coupled to a different one of the network entities; and	13a							data collector: "software and/or hardware for collecting data from entities on an IP network"	data collector: "network device that collects data from network elements"			XaCCT 3.0 has a plurality of data collectors to receive information from the network and to produce records based on the information.
								record: "one or more fields of data treated as a unit and describing one or more transactions"	record: "an ordered set of fields"			Page 1: "The software not only captures relevant transaction details from a multitude of nodes/information sources on the network, in real-time, it also performs policy-based merge and aggregation and produces billing records, SDRs (Service Detail Records), much like the CDRs (Call Detail Records) in the telephone switch."
												Page 2: "The XaCCT system collects network activity data from multiple Information Sources on the Network and consolidates it into Network Sessions linked to real-world entities - users, departments, and the like." Page 2: "Wide range of Information Source Modules (ISMTM) for capturing accounting data from virtually any Network Element/node, such as Authentication servers (RADIUS, TACACS+), Routers and Switches (Cisco NetFlow, Cisco IOS, RMON, SNMP), Mail servers, Proxy servers, DNS, Firewalls, Internet Telephony Gateways and many others."
												Page 4 "Gatherers The Gatherers are multi-threaded lightweight smart-agents designed to run on non-dedicated hosts as background processes (with minimal strain on CPU memory, disk space, or network resources). They collect network session data from a variety of Information Sources. The Gatherers are strategically located close to the Information Sources to minimize traffic on the network. The Gatherers send the network session data either to other Gatherers to be enhanced or to the Central Event Manager to be stored in the Central Database. Each Gatherer can collect information from multiple Information Sources, allowing scaleable configuration of the collection system.
												The Gatherers can handle critical situations such as loss of connection and restarts by storing data in an output buffer until the system is back to its normal state. The Gatherers are remotely administered and controlled by the Central Event Manager, allowing for low cost central administration and automated field upgrades to the entire XaCCT system."
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												Page 4: "Information Sources The XaCCT system can collect network session data from a NetFlow-enabled Cisco router, the log file of a mail server, the logging facility of a firewall, a traffic statistics table available on a switch and accessible through SNMP, a database entry accessible through the Web, an authentication server's query interface, and other network devices. By consolidating the information from all these sources, the XaCCT system can link real-world entities, such as the names of users and departments, to network activity.
												Each type of Information Source is accessed using a different method or protocol. A Gatherer accesses the Information Source using Information Source Module (ISM) for that particular Information Source. Additional Information Sources can easily be added to XaCCT 3.0. XaCCT system is designed to capture and process data from both, asynchronous or "trigger" sources and synchronous or "enhancer" sources. A router generates session triggers whereas the DNS server helps enhance the session record."
												[See Page 5 Information Source Modules, above.]
												Page 5: "Data Collection The XaCCT system is capable of collecting data on every network session. The data is collected by the Gatherers from the various Information Sources, augmented by additional data from other Information Sources through Enhancement Procedures, and sent to the Central Database for storage. The XaCCT system utilizes a proprietary data format called Unified Network Information Record (UNIR).
												A UNIR includes a set of ideal parameters of a session, which may or may not be provided by the Information Source. The Information Source Modules transform the data they get from the Information Sources into UNIR format. The Central Event Manager initiates the data collecting process on startup, signaling the Gatherers to begin collecting data on network sessions. Data collection ceases when the CEM is not operational. If and when the CEM is shutdown it commands the Gatherers to stop sending network information. The data is sent to the CEM to be stored in the Central Database."
an enhancement component that augments data in one of the records produced by one of the plurality of data collectors with data from a different one of the records produced by another of the plurality of data collectors.	13b										"enhancement " is indefinite if it includes anything more than the recited steps	XaCCT 3.0 has an enhancement component that augments data from two records together.
												Page 1: "The software not only captures relevant transaction details from a multitude of nodes/information sources on the network, in real-time, it also performs policy-based merge and aggregation and produces billing records, SDRs (Service Detail Records), much like the CDRs (Call Detail Records) in the telephone switch."
												Page 2: "Real-time, policy-based aggregation, enhancement and merge of data, to create Unified Network Information Records (UNIRTM), discarding redundant data." Page 3: "Merges data collected by multiple Gatherers to eliminate redundancies." Page 3: "The information on network sessions is stored in the database in the form of a table. Each field in the table represents a network session parameter. Each record represents a network session." [See page 3 Central Database diagram, above]
												Page 5: "Data Aggregation The ability to implement flexible and effective aggregation schemes inside the data collection units (Gatherers) is one of the key attributes of the architecture. Real-time, policy-based aggregation at the gatherer level enables the system to collect only the minimal information required to meet customers' accounting/reporting needs for specific time slots. It also minimizes the adverse impact on network performance, caused by the accounting action.
												The system allows the users ultimate flexibility by tailoring the building block of the SDRs to meet their specific needs. For example, a customer usually collecting total daily Web usage metrics only might want to further analyze Web usage on a specific sub-net and thus implement temporarily a different aggregation schemes that will report site views or even URL views."

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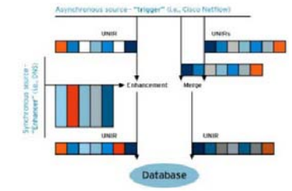
												Page 5: "Data Enhancement Before being stored in the database, the data is enriched through Enhancement Procedures. Typically the information a Gatherer receives from one Information Source is not sufficient to supply all the session details to create meaningful session record. Through the Enhancement Procedures information from multiple sources on the network is combined to obtain all required session parameters. For example, the session data collected by Gatherer 1 from Information Source A contains the source IP address of a given session (like 200.201.32.1), but not the domain address of the source host, or Fully Qualified Domain Name, (such as pc17.xacct.com). The name of the source host can be obtained from another Gatherer (Gatherer 2) collecting information from another Information Source B - a Domain Name System (DNS). The DNS servers maintain information that matches the IP address of a computer to its corresponding Fully Qualified Domain Name (FQDN). As a result, the FQDN of the source host is added to the session record (its UNIR) and used to fill the corresponding field in the Central Database. The Enhancement Procedure can include enhancements for multiple fields. For example, the destination IP can also be used to obtain the FQDN of the destination host. The result will be used to fill yet another field in the UNIR. When all required fields are filled, the fully enhanced UNIR is sent to the CEM and then stored in the Central Database."
												Page 5: "Data Merge The CEM receives all enhanced UNIRs from all Gatherers. If a session is logged by several Gatherers, several UNIRs for the same session will be generated. To eliminate redundancy in the database, the CEM can be configured to merge duplicate records of the same network session before storing them in the CDB. A merge can be defined based on the field values of UNIR fields. This results in the UNIRs being further enhanced."
												Page 6: 
17. The system of claim 13, further comprising: a module coupled to the plurality of data collectors, the module receives the records produced by the plurality of data collectors for aggregation purposes, and wherein the enhancement component resides in the module.		17						aggregation This term does not need to be construed and should be accorded its plain meaning. However, to the extent this term is to be construed, it should have the following construction: "accumulation"	Aggregation refers to "accumulating groups of data record flows [and] generating a single data record for each group," as explained at Col. 7:13-16.	On its face, claim 13 claims both a system and a method of producing records and augmenting records with data. Because claim 13 claims both a system and a method in the same claim, it is indefinite under §112(2) and therefore invalid.		XaCCT 3.0 has gatherers that receive information collected from ISMs for aggregation purposes.
												Page 4 "Gatherers The Gatherers are multi-threaded lightweight smart-agents designed to run on non-dedicated hosts as background processes (with minimal strain on CPU memory, disk space, or network resources). They collect network session data from a variety of Information Sources. The Gatherers are strategically located close to the Information Sources to minimize traffic on the network. The Gatherers send the network session data either to other Gatherers to be enhanced or to the Central Event Manager to be stored in the Central Database. Each Gatherer can collect information from multiple Information Sources, allowing scaleable configuration of the collection system. The Gatherers can handle critical situations such as loss of connection and restarts by storing data in an output buffer until the system is back to its normal state. The Gatherers are remotely administered and controlled by the Central Event Manager, allowing for low cost central administration and automated field upgrades to the entire XaCCT system."

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Citations to references are exemplary only and not in						
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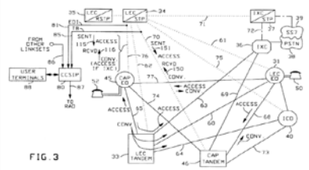
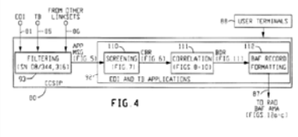
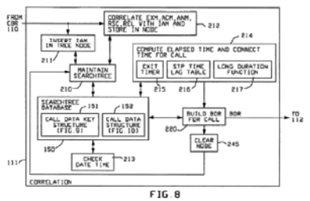
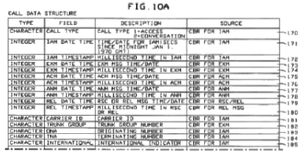
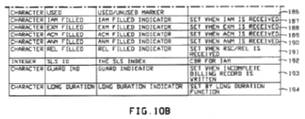
A cell with gray shading indicates matter appearing ir						
A cell with rose shading indicates an element or step						
ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
'065 Patent						
		Openet contends that U.S. Patent No. 5,712,908 ("the '908 patent") anticipates all the claims of the '065 patent either expressly or inherently. Openet also contends that to the extent the '908 patent does not anticipate all the claims of the '065 patent, the '908 patent, in combination with the prior art cited elsewhere in the document or Appendix A render all claims of the '065 patent obvious. Openet provides the following claim chart to illustrate examples of the invalidating disclosures and teachings of the '908 patent.		Openet contends that U.S. Patent No. 5,732,128 ("the '128 patent") anticipates all the claims of the '065 patent either expressly or inherently. Openet also contends that to the extent the '128 patent does not anticipate all the claims of the '065 patent, the '128 patent, in combination with the prior art cited elsewhere in the document or Appendix A render all claims of the '065 patent obvious. Openet provides the following claim chart to illustrate examples of the invalidating disclosures and teachings of the '128 patent.		Openet contends that U.S. Patent No. 5,784,443 ("the '443 patent") anticipates all the claims of the '065 patent either expressly or inherently. Openet also contends that to the extent the '443 patent does not anticipate all the claims of the '065 patent, the '443 patent, in combination with the prior art cited elsewhere in the document or Appendix A render all claims of the '065 patent obvious. Openet provides the following claim chart to illustrate examples of the invalidating disclosures and teachings of the '443 patent.
1. A computer program product embodied on a computer readable storage medium for processing network accounting information comprising:	XaCCT 3,0 is a computer program embodied on a computer readable storage medium (e.g., the medium on which it is stored at Amdocs, the medium on which it is distributed and the medium on which it is stored on a customer's computer).	The '908 program discloses a computer program embodiment of a method for processing call data on a network.	The program of '908 is a computer program. It is inherent that a computer program is embodied on a computer readable storage medium.	"[U]pon the end of the call, also storing the call record in the terminating telecommunication switch; and communicating the originating call record and the terminating call record to a data analysis system where they are combined into a single record and analyzed with similar call records." Col. 2, ll. 44-50.	The '128 patent discloses computer system 82 and data analysis system 80. These system utilize computer programs. It is inherent that a computer program is embodied on a computer readable storage medium.	"These and other objects, features and advantages are accomplished in a telecommunications network which provides means to compile and correlate all usage records created by a specific call as it is transmitted through a communications network." Col. 1, ll. 53-57.

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
		"The invention comprises filtering Sus copied form the CCS/SS7 network for the ISUP MSUs utilized in setting up and controlling a call and, based on information in the ISUP MSUs together with the times of arrival of the MSUs, determining the time duration of the call and providing data that can be utilized to determine the appropriate entity to bill for the elapsed time of the call." Col. 3, ll. 50-56. "The MSUs contain further fields (not shown in FIG. 1) that may be used in constructing a product application program embodiment for the platform described in said CCSIP SNs." Col. 5, ll.43-47.				
computer code for receiving from a first source a first network accounting record;	Because all the XaCCT software functions are performed by computer code, any function that is performed such as receiving accounting record, must be reflected in corresponding computer code.	The '908 patent discloses how events can be collected from multiple sources in the telephone network that will be used as input to the process for correlating into "billable" call detail records (CDRs).	Because all the '908 software functions are performed by computer code, any function that is performed such as receiving accounting record, must be reflected in corresponding computer code.	"After the beginning of step 202, the method 200 progresses to step 204, which records the originating number, the time and date of the call activity in an originating call activity record." Col. 3, l. 65 – Col. 4, l. 1.	Because all the '128 software functions are performed by computer code, any function that is performed such as receiving accounting record, must be reflected in corresponding computer code. A "call activty" record is a "first network accounting record."	"As soon as a call is received by the network, it is labeled as a network event. It is assigned a unique call tag, which call tag is transmitted along the routing path of the event, from site-of-origin 310, through all intermediate switches 311 to the destination switch 312. Switches 310 and 312 need not be structurally different from intermediate switches 311, and are labeled separately for convenience. At each site, a record is created of the event and placed in a local record store 321, along with the associated call tag." Col. 2, ll. 50-58.

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
	a record of "network activity data" qualifies as a "network accounting record under both parties' proposed constructions	Referring to FIG. 3 we see events being received into the system described by this invention (CCSIP (80)) over links 81, 85, and 86.  FIG. 3	A CDR is a "first network accounting record."			
		"The platform 80 includes a filtering component 93 which is described in detail in said Ser. No. 08/344,316. The copied SUs on the links 81, 85 and 86 are applied to filtering 93 which discards the FISUs and LSSUs and passes the MSUs." Col. 10, ll. 61-64				
		The events received are filtered and screened to produce Call Billing Records (CBRs) to be input into the correlation module. Referring to FIG. 4 we see a CBR emanating from the screening module (110) to the correlation module (111).  FIG. 4				
		"The applications 92 comprise a screening component 110, a correlation component 111 and a BAF record formatting component 112. The Application Messages from the filtering component 93 are applied to the screening component 110 to screen the copied MSUs with respect to message direction, OPC and DPC in a manner to be described. The screening component 110 creates Call Billing Records (CBR) from the Application Messages and from information extracted from the filtered and screened SS7 messages. The generated CBRs are then passed to the message correlation component 111." Col. 11, ll. 40-50.				
	a record of "network session data" qualifies as a "network accounting record under both parties' proposed constructions					

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
computer code for correlating the first network accounting record with accounting information available from a second source; and	"Correlating" is indefinite, but if it means collecting related records, then XaCCT 3.0 performs this function or it could not generate an "aggregate CDR."	As described above the '908 patent discloses a correlation module (111) in FIG. 4. [See Fig. 4 above]	A BDR is built by correlating information from a CDR with, e.g. "corresponding IAM information," which comes from a different source.	"After the beginning of step 402, the method 400 progresses to setp 404, which records the terminating directory number, the time and date of the call activity in a terminating call activity record." Col. 4, ll. 53-57.	In case the originating and terminating call activities take place on different switches, at least two call activity records are generated from different sources.	"In step 3, real-time event correlation stage 524 accepts individual records from capture stage 523 and, based on the associated call tags, combines them into a single record that preferably provides an end-to-end view of the event." Col. 3, ll. 56-59.
		The '908 patent discloses how messages collected from the telephone network can be correlated and enhanced to produce "billable" CDRs.		"If the originating and terminating call activities take place on different switches, such as switches 30 and 32, then one of the analysis systems must receive the originating call activity record from the originating switch, such as switch 30, and the terminating call activity record from the terminating switch, such as switch 32, and correlate the two parts of each call activity record to form a complete call activity record as shown in FIG. 6." Col. 5, ll. 55-63.		
		"The correlation component 111, in response to the CBRs from the screening component 110, correlates the EXM, ACM, ANM, RSC and REL with the corresponding IAM information for the call. The elapsed time and connect time of the call are computed from the timestamps of the correlated messages. The correlation process utilizes a searchtree database using a Call Data Key Structure and a Call Data Structure as schematically illustrated in FIGS. 9 and 10, respectively. The correlation component 111 builds a Billing Data Record (BDR) for the call containing the call data together with the elapsed and connect times.				
		The correlation process also contains a function to process long duration connection calls. A long duration connection call has an elapsed time of over 24 hours. The data for active calls are scanned to determine if any of them are long duration connection calls. When such a call is found, a BDR is constructed and the call information in the Call Data Structure is updated to adjust the duration time in a manner to be described. Long duration calls are often encountered in data communication situations." Col. 11, l. 61- Col. 12, l. 13.				
		"Referring again to FIG. 4, the message correlation function 111 provides the processing to correlate call message information received in CBRs from the message screening function 110, calculate timing and necessary data from this information, and supply the data required to construct the Automatic Message Accounting (AMA) data in Bellcore AMA Format (BAF) records to the BAF record formatting function 112." Col. 16, ll. 56-63.				
		A detailed description of the correlation process is depicted in FIG. 8:  FIG. 8				
		"FIG. 8 illustrates the correlation function 111 as including a searchtree database 150. The searchtree database 150 includes a plurality of nodes organized in a balanced searchtree architecture where each node is utilized to store the data for a call being processed. Each node of the searchtree database 150 includes a Call Data Key Structure 151 and a Call Data Structure 152 as depicted in FIGS. 9 and 10, respectively. The searchtree database 150 utilizes a balanced tree architecture for storing call search keys and call data so as to facilitate correlating the IAM and subsequent ISUP messages." Col. 17, ll. 47-58				

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
computer code for using the accounting information with which the first network accounting record is correlated to enhance the first network accounting record.	Under Plaintiff's proposed construction, XaCCT enhances the first network accounting record by adding to it or modifying it using the accounting information.	There are multiple disclosures of enhancement during the correlation process in the '908 patent. [See Fig. 8, above]	Enhancement occurs, e.g. when a CBR is created using information from CDRs.	"If the originating and terminating call activities take place on different switches, such as switches 30 and 32, then one of the analysis systems must receive the originating call activity record from the originating switch, such as switch 30, and the terminating call activity record from the terminating switch, such as switch 32, and correlate the two parts of each call activity record to form a complete call activity record as shown in FIG. 6." Col. 5, ll. 55-63.	The formation of a "complete call activity record" is an enhancement because information is added to a network accounting record and the record is modified.	"In step 3, real-time event correlation stage 524 accepts individual records from capture stage 523 and, based on the associated call tags, combines them into a single record that preferably provides an end-to-end view of the event." Col. 3, ll. 56-59.
		With reference to the two modules "INSERT IAM IN TREE NODE" (211) and "CORRELATE EXM, ACM, ANM, RSC, REL WITH IAM AND STORE IN NODE" (212), the '908 patent discloses an initial accounting records, i.e. the CBR record associated with IAM network event, being stored and correlated with subsequent accounting records, i.e. CBR records associated with the corresponding EXM, ACM, ANM, RSC, REL network events. This results in the generation of an enhancement that is stored as a "CALL DATA STRUCTURE" (152).				"Stage 525 accepts records compiled within real-time correlation stage 524 and creates a standard record of a form used throughout the remainder of the system. Preferably, the standard record has the properties that: A single field has a single meaning (unlike call-tagged resource records). Individual fields from prior records are collected and grouped into physical segments within the standard record. Fields within the output record are byte-aligned into character and binary numerical fields. . . . After a standard record of an event has been created, it may be augmented with additional information." Col. 3, l. 65 – Col. 4, l. 15.
		"The correlation function 111 includes a function 212 for correlating the EXM, ACM, ANM, RSC and REL ISUP messages with the corresponding IAM message for a call. The CBR data for these messages are stored in the node together with the IAM data as indicated in the structures of FIGS. 9 and 10. Thus, a node that is processing a call will be storing the data from the call ISUP messages having the same CIC, Point Code 1 and Point Code 2. These parameters uniquely define the voice circuit of the call. The functions 211 and 212 utilize the searchtree maintenance functionality 210 to locate the node for the call and to insert the data therein." Col. 19, ll. 31-37.				
		FIG. 10A  CALL DATA STRUCTURE TYPE / FIELD / DESCRIPTION / SOURCE CHARACTER / CALL TYPE / CALL TYPE 1=ACCESS 2=TERMINATION / CBR FOR IAM — 170 INTEGER / IAM DATE TIME / TIME/DATE FOR COMPLETED TRACK #1(MIDNIGHT JAN 1 1900) / CBR FOR IAM — 171 INTEGER / IAM TIMESTAMP / FULLSECOND TIME IN IAM / CBR FOR IAM — 172 INTEGER / EXM DATE TIME / EXM MSG TIME/DATE / CBR FOR EXM — 173 INTEGER / EXM TIMESTAMP / MILLISECOND TIME IN EXM / CBR FOR EXM — 174 INTEGER / ACM DATE TIME / ACM MSG TIME/DATE / CBR FOR ACM — 175 INTEGER / ACM TIMESTAMP / FULLSECOND TIME IN ACM / CBR FOR ACM — 176 INTEGER / ANM DATE TIME / ANM MSG TIME/DATE / CBR FOR ANM — 177 INTEGER / ANM TIMESTAMP / MILLISECOND TIME IN ANM / CBR FOR ANM — 178 INTEGER / REL DATE TIME / REL OR RSC MSG TIME/DATE / CBR FOR RSC/REL — 179 INTEGER / REL TIMESTAMP / MILLISECOND TIME IN REL OR RSC / CBR FOR REL MSG — 180 CHARACTER / CARRIER ID / CARRIER ID / CBR FOR IAM — 181 CHARACTER / TRUNK GROUP / TRUNK GROUP NUMBER / CBR FOR EXM — 182 CHARACTER / DNA / ORIGINATING NUMBER / CBR FOR IAM — 183 CHARACTER / TNS / TERMINATING NUMBER / CBR FOR IAM — 184 CHARACTER / INTERNATIONAL / INTERNATIONAL IND CATOR / CBR FOR IAM — 185				
		 CHARACTER / LOCE / USED/UNUSED MARKER — 185 CHARACTER / IAM FILLED / IAM FILLED INDICATOR / SET WHEN IAM IS RECEIVED — 187 CHARACTER / EXM FILLED / EXM FILLED INDICATOR / SET WHEN EXM IS RECEIVED — 188 CHARACTER / ACM FILLED / ACM FILLED INDICATOR / SET WHEN ACM IS RECEIVED — 189 CHARACTER / ANM FILLED / ANM FILLED INDICATOR / SET WHEN ANM IS RECEIVED — 190 CHARACTER / REL FILLED / REL FILLED INDICATOR / SET WHEN RSC/REL IS RECEIVED — 191 INTEGER / SLS ID / SLS INDEX / CBR FOR IAM — 192 CHARACTER / GUARD IND / GUARD INDICATOR / SET WHEN INCOMPLETE BILLING RECORDS IS WRITTEN — 193 CHARACTER / LONG DURATION / LONG DURATION INDICATOR / SET BY LONG DURATION FUNCTION — 194 FIG. 10B				

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
		With reference to FIGS. 10A-B, we can see that the enhanced record, i.e. "CALL DATA STRUCTURE" 152, has used fields from the initial accounting record for the IAM message e.g. fields 170, 171, 172, 181, 183, 184, 185, 187, and 192.				
		Further examples of enhancement within the "CORRELATION" 111 module are disclosed by the '908 patent, for example the functionality provided by the "COMPUTE ELAPSED TIME AND CONNECT TIME FOR CALL" 214 as described below:				
		"The correlation function 111 includes a function 214 for computing the elapsed time and connect time for a call when all of the node data has been stored therefor." Col. 19, ll. 54-56. The result of all of the enhancements provided by the CORRELATION 111 module (provided by inputs from 150 and 214) are an enhanced accounting record called a BDR. The BDR structure is illustrated in FIG. 11				
		 FIG. 11				
		"Referring to FIG. 11 with continued reference to FIGS. 8-10, the Record Type field 225 contains a header identifying the type of record. The CAP Point Code field 226 is derived from Point Code 2 field 162 of the Call Data Key Structure 151 of FIG. 9. The LEC Point Code field 227 is derived from the Point Code 1 field 161 of the Call Data Key Structure 151 of FIG. 9. The Call Code field 228 is derived from the Call Type Field 170 of the Call Data Structure 152 of FIG. 10.				
		The current date and time fields 229 and 230 indicate the current date and time that the BDR is built by the build BDR function 220. The function 220 derives the current date and time from the time standard discussed in said Ser. No. 08/344,316. Current time is used by the applications 92 in long duration call processing and reporting. The Carrier ID field 231 is derived from the Carrier ID field 181 of the Call Data Structure 152 of FIG. 10. The Originating Number and Terminating Number fields 232 and 233 are derived from the corresponding fields 183 and 184 of the Call Data Structure 152 of FIG. 10.				
		The CIC field 234 is derived from the corresponding field 160 of the Call Data Key structure 151 of FIG. 9. The Signaling Linkset Index field 235, the Trunk Group Number field 236 and the International Indicator field 237 are derived from the corresponding fields 192, 182 and 185, respectively, of the Call Data Structure 152 of FIG. 10. The Elapsed Time and Connect Date Time fields 238-240 are provided by the function 214 of FIG. 8 as described above. The Guard Indicator field 241 and the long duration field 242 are derived from the corresponding fields 193 and 194 of the Call Data Structure 152 as described above with respect to FIG. 10." Col. 21, ll. 14-45.				
2. The computer program product embodied on a computer readable storage medium of claim 1, wherein the enhancement is based on a policy.	XaCCT 3.0, e.g., enables an NSP to configure a CCB database to implement an enhancement. Further, the XaCCT "Enhancement Procedures" are based on a policy. See discussion in the main body of this report concerning "policy."	The '908 patent discloses the computer program product of claim 1, wherein the enhancement is based on a policy.	The '908 Patent contains express disclosure of "policies."	"If the call originating and terminating activities are performed by the same central office switch, such as switch 30, the both originating and terminating call activity records will be transferred to the same analysis system, such as analysis system 80, on the same line, such as line 84. If the originating and terminating call activities take place on different switches, such as switches 30 and 32, then one of the analysis systems must receive the originating call activity record from the originating switch, such as switch 30, and the terminating call activity record from the terminating switch, such as switch 32, and correlate the two parts of each call activity record to form a complete call activity record as shown in FIG. 6." Col. 5, ll. 50-63.	Another example of a policy is disclosed at 5:6-16: "After the latest call activity is recorded in step 408, method 400 progresses again to step 406 where again a determination is made if a previously unrecorded call feature has been activated. As long as unrecorded call features continue to be activated, determination step 406 continues to have call activity recording step 408 be the next step. At some point, step 406 will detennine that no previously unrecorded call feature has been activated and method 400 will progress to step 410. At step 410 the tenninating call feature activation record of this call is completed and stored in database storage unit of the terminating switch 32."	"High-speed matching of records with the same call tag value is carried out either until all expected records have been combined, or until a certain time-out period (e.g. 30 minutes) has passed since the last known event record has been created." Col. 3, ll. 59-64.
		With reference to FIG. 8, the '908 patent discloses that there are two components "COMPUTE ELAPSED TIME AND CONNECT TIME FOR CALL" (214) and "CORRELATE EXM, ACM, ANM, RSC, REL WITH IAM AND STORE IN NODE" (212). [See Fig. 8, above] Policies applied in 214 include components for EXIT TIMER (215) STP TIME LAG TABLE (216) LONG DURATION FUNCTION (217)				

ASSERTED CLAIMS						
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		"The correlation function 111 includes a function 214 for computing the elapsed time and connect time for a call when all of the node data has been stored therefor. The function 214 includes an Exit Timer register 215 for storing the usersettable Exit Timer value EXIT for use in adjusting the access charges. The Exit Timer shall preferably have a definable range of 0.5 seconds to 2.5 seconds. The value of EXIT is entered at the user terminals 88 (FIG. 4) and stored in the register 215. The function 214 also includes table 216 for storing the time lags for the various STPs providing ISUP message transport for the point codes monitored by the EOI and TB applications. As discussed above, the data for table 216 is entered and stored as part of system configuration.				
		The function 214 uses the table 216 to obtain the time lag adjustment for the STP associated with the Point Code 1 and Point Code 2 data. The time adjustment is applied to each timestamp, as discussed above, by adding the adjustment for messages with a direction indication of sent and subtracting the adjustment for messages with a direction indication of received. The direction is derived from field 132 of the associated CBR (FIG. 6) for the message and stored (not shown) in the node.				
		The function 214 next determines the connect or start time for the call. For a Call Type of conversation, timing begins with the receipt of the ANM. Thus, for Call Type conversation, the fields 177 and 178 of the Call Data Structure 152 (FIG. 10) are utilized. The start time is computed in seconds and tenths of seconds from the data in the fields 177 and 178.				
		The start time for Call Type of access is computed utilizing the EXM, ACM, and ANM messages, as well as the value of EXIT in Exit Timer register 215. The start time for calculating access charges begins with the receipt of an ACM message or an ANM message if ACM is not received. However, the start time for calculating access charges will be when the Tandem sends an EXM to the originating switch if it is sent before an ACM or ANM.				
		If, however, the time differential between sending an IAM and receiving an EXM is greater than EXIT, the access charges are calculated using a start time of when the IAM was sent plus the value of EXIT; otherwise, access charges are calculated based on time of receipt of EXM.				
		If an EXM is not received, but an ACM is received, the time differential between sending the IAM and receiving the ACM is verified as not greater than EXIT. Access charges are then calculated based on time of receipt of ACM. If the differential is greater than EXIT, the access charges are calculated using a start time of when the IAM was sent plus the value of EXIT.				
		If neither the EXM nor the ACM is received, but an ANM is received, the time differential between sending the IAM and receiving the ANM is verified as not greater than EXIT. Access charges are then calculated based on time of receipt of ANM. If the differential is greater than EXIT, the access charges are calculated using a start time of when the IAM was sent plus the value of EXIT.				
		In other words, for access calls, the start time and tenths should be within the time EXIT from the IAM time. If it is not within this time, then the start time and tenths is reset to the IAM time plus the EXIT time. The start time and tenths for Call Type access is derived from fields 171-178 of the Call Data Structure 152 (FIG. 10).				

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
		For both Call Types access and conversation, the call completion or end time is based on the time of receipt of the RSC message, or the REL message, whichever is received first. Thus, end time and tenths is derived from fields 179 and 180 of the Call Data Structure 152 (FIG. 10). The function 214 computes the elapsed time for the call by subtracting the start time and tenths from the end time and tenths.				
		The function 214 includes a long duration function 217 that sets the Long Duration Indicator 194 of the Call Data Structure 152 as described above. The Long Duration Indicator 194 has a default value of zero and the long duration function 217 sets the indicator 194 to 1 if elapsed time is greater than or equal to 24 hours and to 2 if elapsed time is greater than or equal to 48. It is appreciated that the function 214 computes the elapsed time for long duration calls by using the BAF Record Generation Time as the end time when a Long Duration Indicator (not shown) is set to indicate long duration processing." Col. 19, l. 54 – Col. 21, l. 2.				
		Thus the '908 patent discloses that post enhancement, the BDR record (FIG. 11) has a number of fields either directly or indirectly generated through the policies defined in the "COMPUTE ELAPSED TIME AND CONNECT TIME FOR CALL" (214), i.e. fields 238-240 and 241-242 respectively.				
		"Time fields 238-240 are provided by the function 214 of FIG. 8 as described above. The Guard Indicator field 241 and the long duration field 242 are derived from the corresponding fields 193 and 194 of the Call Data Structure 152 as described above with respect to FIG. 10." Col. 21, ll. 39-45.				
3. The computer program product embodied on a computer readable storage medium of claim 2, wherein the accounting information includes parameters and wherein the using comprises adding at least one parameter from the accounting information to the first network accounting record.	The aggregate CDR is constructed by adding at least one parameter from the accounting information to the first network accounting record.	The '908 patent discloses the computer program product of claim 2 wherein the accounting information includes parameters and wherein the using comprises adding at least one parameter from the accounting information to the first network accounting record.	The claimed parameters include, e.g. , those listed in claim 1c, above, which are used to perform enhancement.	"The Originating Call Activity Record identifies: the originating and terminating customer, each feature that was activated on a call, how the feature was used by the customer and relevant data associated with the feature." Col. 4, ll. 35-40.	The claimed parameters include parameters from the call activity records as discussed in claim 1c, above, which are used to perform enhancement.	"A suitable format for the call tag is shown as part of a local record in FIG. 4 of the drawings. The call tag includes an off-hook time for the call; the terminating switch ID; the port number at the switch, and the sequence or customer number of the call." Col.2 , ll. 58-63.
		Thus the '908 patent discloses that post enhancement, the BDR record (FIG. 11) has a number of fields either directly or indirectly generated through the policies defined in the "COMPUTE ELAPSED TIME AND CONNECT TIME FOR CALL" (214), i.e. fields 238-240 and 241-242 respectively.		"Each terminating call activity record contains the date, time, called directory number, each call feature activated and the result of that activity is recorded in the record." Col. 4, ll. 65-67.		"Stage 525 accepts records compiled within real-time correlation stage 524 and creates a standard record of a form used throughout the remainder of the system. Preferably, the standard record has the properties that: A single field has a single meaning (unlike call-tagged resource records). Individual fields from prior records are collected and grouped into physical segments within the standard record. Fields within the output record are byte-aligned into character and binary numerical fields. . . . After a standard record of an event has been created, it may be augmented with additional information." Col. 3, l. 65 – Col. 4, l. 15.
		"Time fields 238-240 are provided by the function 214 of FIG. 8 as described above. The Guard Indicator field 241 and the long duration field 242 are derived from the corresponding fields 193 and 194 of the Call Data Structure 152 as described above with respect to FIG. 10." Col. 21, ll. 39-45.		"If the originating and terminating call activities take place on different switches, such as switches 30 and 32, then one of the analysis systems must receive the originating call activity record from the originating switch, such as switch 30, and the terminating call activity record from the terminating switch, such as switch 32, and correlate the two parts of each call activity record to form a complete call activity record as shown in FIG. 6." Col. 5, ll. 55-63.		

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
4. The computer program product embodied on a computer readable storage medium of claim 3, wherein the accounting information is in the form of a second network accounting record.	See claim 1a, above.	The '908 patent discloses the computer program product of claim 3, wherein the accounting information is in the form of a second network accounting record.	This claim reads on processing multiple CDRs to form an aggregate billing record, which is disclosed in the '908 patent.	"After the beginning of step 402, the method 400 progresses to step 404, which records the terminating directory number, the time and date of the call activity in a terminating call activity record." Col. 4, ll. 53-57	"If the originating and terminating call activities take place on different switches, such as switches 30 and 32, then one of the analysis systems must receive the originating call activity record from the originating switch, such as switch 30, and the terminating call activity record from the terminating switch, such as switch 32, and correlate the two parts of each call activity record to form a complete call activity record as shown in FIG. 6." Col. 5, ll. 55-63.	"The communication network of FIG. 3 may well provide services other than POTS (plain old telephone service). In another embodiment, the network may be accessed by dedicated access terminals, as well as, packet-switched data sources based on other networks (303-305). Data from these packet-switched sources, although bypassing local exchange 302 may include routing information imbedded in the data, and represent another network event. Such data may be assigned a call tag. The call tag is propagated through the network to generate resource records in the same fashion as described above." Col. 3, ll. 22-33.
		With resepect to FIG. 8, the '908 patent discloses that there are two components "COMPUTE ELAPSED TIME AND CONNECT TIME FOR CALL" (214) and "CORRELATE EXM, ACM, ANM, RSC, REL WITH IAM AND STORE IN NODE" (212). [See Fig. 8, above]			The originating call activity record and the terminating call activity record are, e.g., a first and a second networl accountig record.	
		For component 212, the '908 patent discloses that the enhancement of the "CALL DATA STRUCTURE" referred to in FIG. 10 is also derived from secondary network accounting records i.e. the CBRs corresponding to EXM, ACM, ANM, RSC, and REL network events. [See FIG. 10A, above]				
		See also that for example fields 173, 174, 175, 176, 177, 178, 179, 180 and 182 are obtained from the accounting records (CBRs) corresponding to second network accounting record.				

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
7. A method of processing network accounting information comprising:	See claim 1, above.	The '908 patent discloses a method of processing network accounting information.	See claim 1, above.	"[U]pon the end of the call, also storing the call record in the terminating telecommunication switch; and communicating the originating call record and the terminating call record to a data analysis system where they are combined into a single record and analyzed with similar call records." Col. 2, ll. 44-50.	See claim 1, above.	"These and other objects, features and advantages are accomplished in a telecommunications network which provides means to compile and correlate all usage records created by a specific call as it is transmitted through a communications network." Col. 1, ll. 53-57.
		"The invention comprises filtering Sus copied form the CCS/SS7 network for the ISUP MSUs utilized in setting up and controlling a call and, based on information in the ISUP MSUs together with the times of arrival of the MSUs, determining the time duration of the call and providing data that can be utilized to determine the appropriate entity to bill for the elapsed time of the call." Col. 3, ll. 50-56. "The MSUs contain further fields (not shown in FIG. 1) that may be used in constructing a product application program embodiment for the platform described in said CCSIP SNs." Col. 5, ll.43-47.				
receiving from a first source a first network accounting record;	See claim 1a, above.	The '908 patent discloses how events can be collected from multiple sources in the telephone network that will be used as input to the process for correlating into "billable" call detail records (CDRs).	See claim 1a, above.	"After the beginning of step 202, the method 200 progresses to step 204, which records the originating number, the time and date of the call activity in an originating call activity record." Col. 3, l. 65 – Col. 4, l. 1.	See claim 1a, above.	"As soon as a call is received by the network, it is labeled as a network event. It is assigned a unique call tag, which call tag is transmitted along the routing path of the event, from site-of-origin 310, through all intermediate switches 311 to the destination switch 312. Switches 310 and 312 need not be structurally different from intermediate switches 311, and are labeled separately for convenience. At each site, a record is created of the event and placed in a local record store 321, along with the associated call tag." Col. 2, ll. 50-58.
		Referring to FIG. 3 we see events being received into the system described by this invention (CCSIP (80)) over links 81, 85, and 86. [See Fig. 3, above]				
		"The platform 80 includes a filtering component 93 which is described in detail in said Ser. No. 08/344,316. The copied SUs on the links 81, 85 and 86 are applied to filtering 93 which discards the FISUs and LSSUs and passes the MSUs." Col. 10, ll. 61-64.				
		The events received are filtered and screened to produce Call Billing Records (CBRs) to be input into the correlation module. Referring to FIG. 4 we see a CBR emanating from the screening module (110) to the correlation module (111). [See Fig. 4, above]				
		"The applications 92 comprise a screening component 110, a correlation component 111 and a BAF record formatting component 112. The Application Messages from the filtering component 93 are applied to the screening component 110 to screen the copied MSUs with respect to message direction, OPC and DPC in a manner to be described. The screening component 110 creates Call Billing Records (CBR) from the Application Messages and from information extracted from the filtered and screened SS7 messages. The generated CBRs are then passed to the message correlation component 111." Col. 11, ll. 40-50.				

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
correlating the first network accounting record with accounting information available from a second source; and	See claim 1b, above.	As described above the '908 patent discloses a correlation module (111) in FIG. 4. [See Fig. 4 above]	See claim 1b, above.	"After the beginning of step 402, the method 400 progresses to setp 404, which records the terminating directory number, the time and date of the call activity in a terminating call activity record." Col. 4, ll. 53-57.	See claim 1b, above.	"In step 3, real-time event correlation stage 524 accepts individual records from capture stage 523 and, based on the associated call tags, combines them into a single record that preferably provides an end-to-end view of the event." Col. 3, ll. 56-59.
		The '908 patent discloses how messages collected from the telephone network can be correlated and enhanced to produce "billable" CDRs.		"If the originating and terminating call activities take place on different switches, such as switches 30 and 32, then one of the analysis systems must receive the originating call activity record from the originating switch, such as switch 30, and the terminating call activity record from the terminating switch, such as switch 32, and correlate the two parts of each call activity record to form a complete call activity record as shown in FIG. 6." Col. 5, ll. 55-63.		
		"The correlation component 111, in response to the CBRs from the screening component 110, correlates the EXM, ACM, ANM, RSC and REL with the corresponding IAM information for the call. The elapsed time and connect time of the call are computed from the timestamps of the correlated messages. The correlation process utilizes a searchtree database using a Call Data Key Structure and a Call Data Structure as schematically illustrated in FIGS. 9 and 10, respectively. The correlation component 111 builds a Billing Data Record (BDR) for the call containing the call data together with the elapsed and connect times.				
		The correlation process also contains a function to process long duration connection calls. A long duration connection call has an elapsed time of over 24 hours. The data for active calls are scanned to determine if any of them are long duration connection calls. When such a call is found, a BDR is constructed and the call information in the Call Data Structure is updated to adjust the duration time in a manner to be described. Long duration calls are often encountered in data communication situations." Col. 11, l. 61- Col. 12, l. 13.				
		"Referring again to FIG. 4, the message correlation function 111 provides the processing to correlate call message information received in CBRs from the message screening function 110, calculate timing and necessary data from this information, and supply the data required to construct the Automatic Message Accounting (AMA) data in Bellcore AMA Format (BAF) records to the BAF record formatting function 112." Col. 16, ll. 56-63.				
		A detailed description of the correlation process is depicted in FIG. 8: [See Fig. 8, above]				
		"FIG. 8 illustrates the correlation function 111 as including a searchtree database 150. The searchtree database 150 includes a plurality of nodes organized in a balanced searchtree architecture where each node is utilized to store the data for a call being processed. Each node of the searchtree database 150 includes a Call Data Key Structure 151 and a Call Data Structure 152 as depicted in FIGS. 9 and 10, respectively. The searchtree database 150 utilizes a balanced tree architecture for storing call search keys and call data so as to facilitate correlating the IAM and subsequent ISUP messages." Col. 17, ll. 47-58				

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
using the accounting information with which the first network accounting record is correlated to enhance the first network accounting record.	See claim 1c, above.	There are multiple disclosures of enhancement during the correlation process in the '908 patent. [See Fig. 8, above]	See claim 1c, above.	"If the originating and terminating call activities take place on different switches, such as switches 30 and 32, then one of the analysis systems must receive the originating call activity record from the originating switch, such as switch 30, and the terminating call activity record from the terminating switch, such as switch 32, and correlate the two parts of each call activity record to form a complete call activity record as shown in FIG. 6." Col. 5, ll. 55-63.	See claim 1c, above.	"In step 3, real-time event correlation stage 524 accepts individual records from capture stage 523 and, based on the associated call tags, combines them into a single record that preferably provides an end-to-end view of the event." Col. 3, ll. 56-59.
		With reference to the two modules "INSERT IAM IN TREE NODE" (211) and "CORRELATE EXM, ACM, ANM, RSC, REL WITH IAM AND STORE IN NODE" (212), the '908 patent discloses an initial accounting records, i.e. the CBR record associated with IAM network event, being stored and correlated with subsequent accounting records, i.e. CBR records associated with the corresponding EXM, ACM, ANM, RSC, REL network events. This results in the generation of an enhancement that is stored as a "CALL DATA STRUCTURE" (152).				"Stage 525 accepts records compiled within real-time correlation stage 524 and creates a standard record of a form used throughout the remainder of the system. Preferably, the standard record has the properties that: A single field has a single meaning (unlike call-tagged resource records). Individual fields from prior records are collected and grouped into physical segments within the standard record. Fields within the output record are byte-aligned into character and binary numerical fields. . . . After a standard record of an event has been created, it may be augmented with additional information." Col. 3, l. 65 – Col. 4, l. 15.
		"The correlation function 111 includes a function 212 for correlating the EXM, ACM, ANM, RSC and REL ISUP messages with the corresponding IAM message for a call. The CBR data for these messages are stored in the node together with the IAM data as indicated in the structures of FIGS. 9 and 10. Thus, a node that is processing a call will be storing the data from the call ISUP messages having the same CIC, Point Code 1 and Point Code 2. These parameters uniquely define the voice circuit of the call. The functions 211 and 212 utilize the searchtree maintenance functionality 210 to locate the node for the call and to insert the data therein." Col. 19, ll. 31-37.				
		[See Figs. 10A, 10B, above]				
		With reference to FIGS. 10A-B, we can see that the enhanced record, i.e. "CALL DATA STRUCTURE" 152, has used fields from the initial accounting record for the IAM message e.g. fields 170, 171, 172, 181, 183, 184, 185, 187, and 192.				
		Further examples of enhancement within the "CORRELATION" 111 module are disclosed by the '908 patent, for example the functionality provided by the "COMPUTE ELAPSED TIME AND CONNECT TIME FOR CALL" 214 as described below: "The correlation function 111 includes a function 214 for computing the elapsed time and connect time for a call when all of the node data has been stored therefor." Col. 19, ll. 54-56. The result of all of the enhancements provided by the CORRELATION 111 module (provided by inputs from 150 and 214) are an enhanced accounting record called a BDR. The BDR structure is illustrated in FIG. 11				
		[See Fig. 11, above]				

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
		"Referring to FIG. 11 with continued reference to FIGS. 8-10, the Record Type field 225 contains a header identifying the type of record. The CAP Point Code field 226 is derived from Point Code 2 field 162 of the Call Data Key Structure 151 of FIG. 9. The LEC Point Code field 227 is derived from the Point Code 1 field 161 of the Call Data Key Structure 151 of FIG. 9. The Call Code field 228 is derived from the Call Type Field 170 of the Call Data Structure 152 of FIG. 10.				
		The current date and time fields 229 and 230 indicate the current date and time that the BDR is built by the build BDR function 220. The function 220 derives the current date and time from the time standard discussed in said Ser. No. 08/344,316. Current time is used by the applications 92 in long duration call processing and reporting. The Carrier ID field 231 is derived from the Carrier ID field 181 of the Call Data Structure 152 of FIG. 10. The Originating Number and Terminating Number fields 232 and 233 are derived from the corresponding fields 183 and 184 of the Call Data Structure 152 of FIG. 10.				
		The CIC field 234 is derived from the corresponding field 160 of the Call Data Key structure 151 of FIG. 9. The Signaling Linkset Index field 235, the Trunk Group Number field 236 and the International Indicator field 237 are derived from the corresponding fields 192, 182 and 185, respectively, of the Call Data Structure 152 of FIG. 10. The Elapsed Time and Connect Date Time fields 238-240 are provided by the function 214 of FIG. 8 as described above. The Guard Indicator field 241 and the long duration field 242 are derived from the corresponding fields 193 and 194 of the Call Data Structure 152 as described above with respect to FIG. 10." Col. 21, ll. 14-45.				
13. A system for collecting data from network entities for a data consuming application, comprising:	XaCCT 3.0 discloses collecting data from network entities for a "data consuming application" if that term means an application that uses data.	The '908 patent contains multiple references to the SS7 (i.e. the telephony network) being a voice/data network. E.g., Col 2, ll. 22-23.	The '908 patent discloses collecting data from network entities for a "data consuming application" if that term means an application that uses data.	"[U]pon the end of the call, also storing the call record in the terminating telecommunication switch; and communicating the originating call record and the terminating call record to a data analysis system where they are combined into a single record and analyzed with similar call records." Col. 2, ll. 44-50.	The '128 patent discloses collecting data from network entities for a "data consuming application" if that term means an application that uses data.	"These and other objects, features and advantages are accomplished in a telecommunications network which provides means to compile and correlate all usage records created by a specific call as it is transmitted through a communications network." Col. 1, ll. 53-57.

ASSERTED CLAIMS						
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ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
a plurality of data collectors to receive information from the network entities and to produce records based on the information, each data collector in the plurality of data collectors being associated with and coupled to a different one of the network entities; and	The "data collectors" of the claim are referred to as "Gatherers" in XaCCT terminology. There is a Gatherer corresponding to each network entity. One of skill in the art would understand "coupled to" to mean "in communication with."	The '908 patent discloses that in SS7 networks the signalling messages can travel over multiple paths, thus to correlate the messages related to a single session requires having multiple linkset collectors.	The data collectors of the '908 patent collect, e.g. ISUP message from different network entities and use them to generate billing records.	The '128 patent is directed towards collecting call activity data in a telecommunications system. One of ordinary skill in the art would have understood such a system to contain a plurality of telephones and a plurality of data collectors associated with and coupled to said telephones.	The data collectors of the '128 patent are those portions of the system that collect activity records from switches, e.g., the components of analysis system 80 that connect to lines 84(1) through 84(L).	"These and other objects, features and advantages are accomplished in a telecommunications network which provides means to compile and correlate all usage records created by a specific call as it is transmitted through a communications network." Col. 1, ll. 53-57.
		"For EOI, LEC signaling links and linksets between CAP EOs and LEC STPs are monitored. One such linkset is indicated by reference numeral 76. In FIG. 2, another such linkset is indicated by reference numeral 78. The SUs copied on the linkset 76 are transported to the platform 80 on a link 81. Details of copying the SUs from an SS7 signaling linkset and transporting the copied SUs on a link, such as the link 81, to the platform 80 are described in said CCSIP SNs.				"The communication network of FIG. 3 may well provide services other than POTS (plain old telephone service). In another embodiment, the network may be accessed by dedicated access terminals, as well as, packet-switched data sources based on other networks (303-305). Data from these packet-switched sources, although bypassing local exchange 302 may include routing information imbedded in the data, and represent another network event. Such data may be assigned a call tag. The call tag is propagated through the network to generate resource records in the same fashion as described above." Col. 3, ll. 22-33.
		The architecture of the CCSIP 80 is described in said CCSIP SNs as link 81 comprising a T1 link coupled to TSP pairs that transmit data to Application Servers. Because of the nature of SS7 message distribution, TSPs monitoring mated STP pairs should transmit to the same Application Server. In other words, T1 circuits from mated STP pairs should be terminated at TSPs that communicate with the same Application Server. This is because call setup and tear-down messages do not necessarily transit the same linkset in both directions. Therefore, the monitored linksets for STP mated pairs should terminate at the same Application Server to accommodate bi-directional message traffic." Col. 9, ll. 45-65				The '443 patent discloses the collection of data from a telecommunications network. One of ordinary skill in the art would have understood that such a network contains a plurality of switches or access terminals and a plurality of data collectors associated with and coupled to the switches or access terminals.
		The '908 patent discloses how events can be collected from multiple sources in the telephone network that will be used as input to the process for correlating into "billable" call detail records (CDRs).				
		Referring to FIG. 3 we see events being received into the system described by this invention (CCSIP (80)) over links 81, 85, and 86. [See Fig. 3, above]				
		"The platform 80 includes a filtering component 93 which is described in detail in said Ser. No. 08/344,316. The copied SUs on the links 81, 85 and 86 are applied to filtering 93 which discards the FISUs and LSSUs and passes the MSUs." Col. 10, ll. 61-64.				

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
an enhancement component that augments data in one of the records produced by one of the plurality of data collectors with data from a different one of the records produced by another of the plurality of data collectors.	The "enhancement component" is, e.g, that portion of the XaCCT system that performs the enhancement step of claim 1. To generate a unified bill containing summary information about a plurality of services of different network entities, it is necessay to combine data from different collectors.	With respect to FIG. 8, the '908 patent discloses two components "COMPUTE ELAPSED TIME AND CONNECT TIME FOR CALL" (214) and "CORRELATE EXM, ACM, ANM, RSC, REL WITH IAM AND STORE IN NODE" (212). [See Fig. 8, above]	The "enhancement component" is, e.g., that postion of the '908 system that performs the enhancement step of claim 1. To generate a unified bill containing summary information about a plurality of services of different network entities, it is necessay to combine data from different collectors.	"If the originating and terminating call activities take place on different switches, such as switches 30 and 32, then one of the analysis systems must receive the originating call activity record from the originating switch, such as switch 30, and the terminating call activity record from the terminating switch, such as switch 32, and correlate the two parts of each call activity record to form a complete call activity record as shown in FIG. 6." Col. 5, ll. 55-63.	The "enhancement component" is, e.g., that portion of the '128 system that performs the enhancement step of claim 1. To generate a unified bill containing summary information about a plurality of services of different network entities, it is necessay to combine data from different collectors.	"In step 3, real-time event correlation stage 524 accepts individual records from capture stage 523 and, based on the associated call tags, combines them into a single record that preferably provides an end-to-end view of the event." Col. 3, ll. 56-59.
		The '908 patent discloses that the enhancement of the "CALL DATA STRUCTURE" referred to in FIG. 10 are derived from secondary network accounting records i.e. the CBRs corresponding to EXM, ACM, ANM, RSC, and REL network events. [See FIG. 10A, above]		The '128 patent discloses a data analysis system that correlates two call activity records and enhances the records by augmenting data from one record to another. Thus, the '128 patent discloses an enhancement component.		"Stage 525 accepts records compiled within real-time correlation stage 524 and creates a standard record of a form used throughout the remainder of the system. Preferably, the standard record has the properties that: A single field has a single meaning (unlike call-tagged resource records). Individual fields from prior records are collected and grouped into physical segments within the standard record. Fields within the output record are byte-aligned into character and binary numerical fields. . . . After a standard record of an event has been created, it may be augmented with additional information." Col. 3, l. 65 – Col. 4, l. 15.
		FIG. 10A shows that for example fields 173, 174, 175, 176, 177, 178, 179, 180 and 182 are obtained from the accounting records (CBRs) corresponding to second network accounting record.				The '443 patent discloses enhancement of a record by augmenting the record with additional information. One of ordinary skill in the art would have understood such a disclose to require the use of an enhancement component.

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
17. The system of claim 13, further comprising: a module coupled to the plurality of data collectors, the module receives the records produced by the plurality of data collectors for aggregation purposes, and wherein the enhancement component resides in the module.	The Central Event Manager, e.g., is a module satisfying the limitation.	The '908 patent discloses the system of claim 13, further comprising a module coupled to the plurality of data collections, the module receives the records produced by the plurality of data collectors for aggregation purposes, and wherein the enhancement component resides in the module.	Platform 80, disclosed in Fig. 4, contains the claimed module.	"If the originating and terminating call activities take place on different switches, such as switches 30 and 32, then one of the analysis systems must receive the originating call activity record from the originating switch, such as switch 30, and the terminating call activity record from the terminating switch, such as switch 32, and correlate the two parts of each call activity record to form a complete call activity record as shown in FIG. 6." Col. 5, ll. 55-63.	Analysis system 80, e.g,, contains the claimed module.	"In step 3, real-time event correlation stage 524 accepts individual records from capture stage 523 and, based on the associated call tags, combines them into a single record that preferably provides an end-to-end view of the event." Col. 3, ll. 56-59.
		"Referring again to FIG. 4, the message correlation function 111 provides the processing to correlate call message information received in CBRs from the message screening function 110, calculate timing and necessary data from this information, and supply the data required to construct the Automatic Message Accounting (AMA) data in Bellcore AMA Format (BAF) records to the BAF record formatting function 112.		The '128 patent discloses a data analysis system that correlates two call activity records and enhances the records by augmenting data from one record to another. Thus, the '128 patent discloses an enhancement component.		"Stage 525 accepts records compiled within real-time correlation stage 524 and creates a standard record of a form used throughout the remainder of the system. Preferably, the standard record has the properties that: A single field has a single meaning (unlike call-tagged resource records). Individual fields from prior records are collected and grouped into physical segments within the standard record. Fields within the output record are byte-aligned into character and binary numerical fields. . . . After a standard record of an event has been created, it may be augmented with additional information." Col. 3, l. 65 – Col. 4, l. 15.
		A balanced tree algorithm is utilized to correlate the EXM, ACM, ANM, RSC, and REL information with the corresponding IAM information. Each node of the tree represents one set of data for a call, and each node is initiated when call message information is received from the message screening function 110 in a CBR. The node data structures for storing the information is depicted in FIGS. 9 and 10 to be discussed.				The '443 patent discloses enhancement of a record by augmenting the record with additional information. One of ordinary skill in the art would have understood such a disclose to require the use of an enhancement component.

ASSERTED CLAIMS						
	Additional Shamos Opinion re prior art XaCCT systems	Contentions re Brinkman U.S Patent 5,712,908	Additional Shamos opinion re Brinkman U.S Patent 5,712,908	Contentions re Bushnell U.S Patent 5,732,128	Additional Shamos opinion re Bushnell U.S Patent 5,732,128	Contentions re Chapman U.S Patent 5,784,443
		Thus, when the IAM information is received, the data in the CBR therefor, including the time and date, are stored in the appropriate fields of the data structures of FIGS. 9 and 10. When EXM, ACM, and ANM information is received from message screening 110, the time and date of the messages are stored in the node. When the RSC or REL information is received, the time and date of the message is also stored in the node and the correlation function 111 initiates the preparation of a Billing Data Record (BDR) so as to prepare the call data for transmission to the BAF formatting function 112." Col. 16, l. 56 – Col. 17, l. 14.				

Citations to references are exemplary only and not in			
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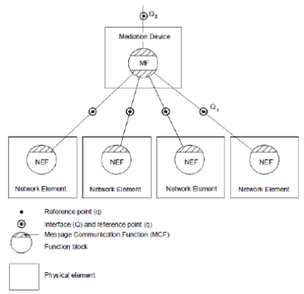
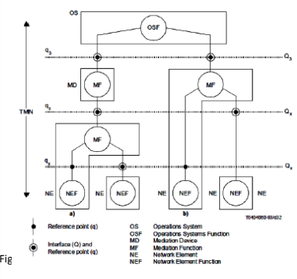
A cell with rose shading indicates an element or step			
ASSERTED CLAIMS			
	Additional Shamos opinion re Chapman U.S Patent 5,784,443	Contentions re ITU-T M.3010 Specification	Additional Shamos opinion re ITU-T M.3010 Specification
'065 Patent			
		Openet contends that M.3010 Specification published by the Telecommunications Standardization Sector of the International Telecommunications Union (ITU-T) in May of 1996 (the "M.3010 Specification") anticipates all the claims of the '065 patent either expressly or inherently. Openet also contends that to the extent the M.3010 Specification does not anticipate all the claims of the '065 patent, the M.3010 Specification, in combination with the prior art cited elsewhere in the document or Appendix A render all claims of the '065 patent obvious. Openet provides the following claim chart to illustrate examples of the invalidating disclosures and teachings of the M.3010 Specification.	
1. A computer program product embodied on a computer readable storage medium for processing network accounting information comprising:	The '443 patent discloses multiple computer systems utilizing computer programs. It is inherent that a computer program is embodied on a computer readable storage medium.	The M.3010 specification describes the architecture and functionality of a computer framework for managing telecommunications networks. "The objective for the TMN specifications is to provide a framework for telecommunications management." Section 1.4. Specifically, it describes the accounting functionality that is provided by the framework. "Five management functional areas identified to date are as follows: ... accounting management; ..." Section 1.5.	The M.3010 specification discloses multiple software components which are computer programs. It is inherent that a computer program is embodied on a computer readable storage medium.

ASSERTED CLAIMS			
	Additional Shamos opinion re Chapman U.S Patent 5,784,443	Contentions re ITU-T M.3010 Specification	Additional Shamos opinion re ITU-T M.3010 Specification
		Furthermore, the M.3010 specification describes how the framework can be realised as a standalone device such as a computer program product that is embodied in a computer readable storage medium. "Mediation uses standard interfaces and can be realized in a separate Mediation Device or be shared among NE(s)" Section 6.5.1. "Mediation processes can be implemented as stand-alone equipment or ..." Section 6.5.3.	
computer code for receiving from a first source a first network accounting record;	The "record" referred to in the citation at left is a "first network accounting record." The source from which it is received is a switch.	The M.3010 specification describes a mediation process that is capable of receiving accounting records from network equipment, referred to as Network Elements or Network Element Functions.	Network accounting records are disclosed, e.g., as "call records."

ASSERTED CLAIMS			
	Additional Shamos opinion re Chapman U.S Patent 5,784,443	Contentions re ITU-T M.3010 Specification	Additional Shamos opinion re ITU-T M.3010 Specification
		"Mediation is a process within the TMN which acts on information passing between Network Element Functions (NEFs), or Q Adaptor Functions (QAFs), and Operations Systems Functions (OSFs) and provides local management functionality to the NE(s)." Section 6.5.1	"Billing functions include the management of the generation, collection and storage of call records and the introduction and modification of tariffs." II.1.2.2, p. 55

ASSERTED CLAIMS			
	Additional Shamos opinion re Chapman U.S Patent 5,784,443	Contentions re ITU-T M.3010 Specification	Additional Shamos opinion re ITU-T M.3010 Specification
computer code for correlating the first network accounting record with accounting information available from a second source; and	The '443 patent expressly discloses correlation of network accounting records in real-time.	The M.3010 specification describes how accounting records from multiple sources can be correlated by means of a mediation function. "Typically, mediation will fulfil one of two roles. To provide management functionality to groups of similar network elements (e.g. modems or transmission equipment, etc.) or…" Section 6.5.1.	The M.3010 specification expressly discloses correlation of accounting records: "There is information specified in the information model at the f reference point which is not relevant at other reference points, but which needs to be communicated between the human user of the WSF and the OSF or MF and/or is needed by the WSF itself. For example, the OSF can produce information that was not available from an NEF or another OSF by synthesizing or correlating or by application of expert system rules." p. 46.
		Figure 25 provides an example overview of this process, where the accounting records are generated by Network Elements (NEs) and subsequently correlated by a Mediation Function (MFs) within a Mediation Device.	
			

ASSERTED CLAIMS			
	Additional Shamos opinion re Chapman U.S Patent 5,784,443	Contentions re ITU-T M.3010 Specification	Additional Shamos opinion re ITU-T M.3010 Specification
computer code for using the accounting information with which the first network accounting record is correlated to enhance the first network accounting record.	Creation of the "standard record" results from enhancing the first network accounting record because information is added from other records.	The M.3010 specification describes a component, known as an Operations Systems Function (OSF), which is capable of receiving accounting records from multiple Mediation Functions, and subsequently using these accounting records.	"Mediation Function (MF) Block: The MF block acts on information passing between an OSF and NEF (or QAF) to ensure that the information conforms to the expectations of the function blocks attached to the MF. This may be necessary as the scope of the information supported by different communicating function blocks at the same reference point can differ. Mediation function blocks may store, adapt, filter, threshold and condense information." 2.1.4, p. 7. The condensation of information, e.g, is an enhancement.
		"The OSF processes information related to the telecommunications management for the purpose of monitoring/coordinating and/or controlling telecommunication functions including management functions (i.e. the TMN itself)." Section 2.1.1.	
		"... the OSF can produce information that was not available from an NEF or another OSF by synthesizing or correlating or by application of expert system rules." Section 6.8.2.	
		The architecture of the components capable of performing correlation and mediation is shown in Figure III.2.	
		Fig 	

ASSERTED CLAIMS			
	Additional Shamos opinion re Chapman U.S Patent 5,784,443	Contentions re ITU-T M.3010 Specification	Additional Shamos opinion re ITU-T M.3010 Specification
		"Reporting correlation is required on occasions when a single "event" will be detected by a number of distinct Agents as separate events. This will require that the Manager responsible is able to correlate these separate events so as to detect the underlying "event" which gave rise to them." Section IV.1.	
2. The computer program product embodied on a computer readable storage medium of claim 1, wherein the enhancement is based on a policy.	The citation at left discloses enhancement based on a policy because, e.g., the administrative decision to use a time-out period of 30 minutes is a policy.	The M.3010 specification describes a security component that allows other components to make policy related decisions based upon the users' requirements.	The M.3010 specification discloses enhancement based on a policy based on expert system rules: "There is information specified in the information model at the f reference point which is not relevant at other reference points, but which needs to be communicated between the human user of the WSF and the OSF or MF and/or is needed by the WSF itself. For example, the OSF can produce information that was not available from an NEF or another OSF by synthesizing or correlating or by application of expert system rules." p. 46.
		"Security functional component provides security service that is necessary for function blocks to satisfy the security policy and/or user requirements." Section 2.2.8.	

ASSERTED CLAIMS			
	Additional Shamos opinion re Chapman U.S Patent 5,784,443	Contentions re ITU-T M.3010 Specification	Additional Shamos opinion re ITU-T M.3010 Specification
		Furthermore, policies can be used within the Mediation Function to make decisions based upon security considerations.	
		"Mediation may consist of one or more of these specific processes: … Processes involving decision making … security (e.g. access control, verification);" Section 6.5.2.	

ASSERTED CLAIMS			
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3. The computer program product embodied on a computer readable storage medium of claim 2, wherein the accounting information includes parameters and wherein the using comprises adding at least one parameter from the accounting information to the first network accounting record.	The "fields" referred to in claim 1c, above, contain parameters. The fields are enhanced by being modified, e.g., being byte-aligned. Parameters are also added from other records. See citation at lower left.	The M.3010 specification describes how the mediation component can be used as an enhancement component to augment data in one record with data collected from other records.	The mediation component operates on network accounting records. The mediation funcion blocks add at least one parameterto a network accounting record. Mediation involves "augmenting and enhancing information in the translation process from a local Management Information Base (MIB) to be compliant with the generic information model." p. 44
		"Mediation function blocks may store, adapt, filter, threshold and condense information." Section 2.1.4.	
		"These management application functions are the essential and underlying parts of OSFs. They may range from simple to more complex functions such as: ... adding value to raw information, e.g. data concentration, alarm correlation, statistics and performance analysis, ..." Section 2.2.1.2.	
		"The processes that can form mediation can be classified into five general process categories... processes involving data handling – concentration of data; – collection of data; – data formatting; – data translation." Section 6.5.2.	
		"For example, the OSF can produce information that was not available from an NEF or another OSF by synthesizing or correlating or by application of expert system rules." Section 6.8.2.	

ASSERTED CLAIMS			
	Additional Shamos opinion re Chapman U.S Patent 5,784,443	Contentions re ITU-T M.3010 Specification	Additional Shamos opinion re ITU-T M.3010 Specification
4. The computer program product embodied on a computer readable storage medium of claim 3, wherein the accounting information is in the form of a second network accounting record.	"These and other objects. features and advantages are accomplished in a telecommunications network which provides means to compile and correlate all usage records created by a specific call as it is transmitted through a communications network. The compilation and correlation of usage records is achieved by assigning a unique identifier to each call within a communications network and propagating the identification to all network resources used within the call. Compilation and correlation of records is accomplished within a short time after the termination of the event. The compiled resource-usage records are translated into a record that may be centrally archived and that accurately reflects customers' use of network resources. This record may then be accessed by further systems. such as billing and network traffic control." 1:53-67	The M.3010 specification describes how the mediation component can be used as an enhancement component to augment data in one record with data collected from other records.	The mediation component operates on network accounting records. The mediation funcion blocks add at least one parameterto a network accounting record. Mediation involves "augmenting and enhancing information in the translation process from a local Management Information Base (MIB) to be compliant with the generic information model." p. 44
	The above citation discloses combining more than one accounting record into a single record for billing.	"Mediation function blocks may store, adapt, filter, threshold and condense information." Section 2.1.4.	
		"These management application functions are the essential and underlying parts of OSFs. They may range from simple to more complex functions such as: ... adding value to raw information, e.g. data concentration, alarm correlation, statistics and performance analysis, ..." Section 2.2.1.2.	
		"The processes that can form mediation can be classified into five general process categories... processes involving data handling – concentration of data; – collection of data; – data formatting; – data translation." Section 6.5.2.	
		"For example, the OSF can produce information that was not available from an NEF or another OSF by synthesizing or correlating or by application of expert system rules." Section 6.8.2.	

ASSERTED CLAIMS			
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7. A method of processing network accounting information comprising:	See claim 1, above.	The M.3010 specification describes the processing of accounting information in the context of accounting management.	See claim 1, above.
		"Five management functional areas identified to date are as follows: ... accounting management; ..." Section 1.5.	
receiving from a first source a first network accounting record;	See claim 1a, above.	The M.3010 specification describes a mediation process that is capable of receiving accounting records from network equipment, referred to as Network Elements or Network Element Functions. "Mediation is a process within the TMN which acts on information passing between Network Element Functions (NEFs), or Q Adaptor Functions (QAFs), and Operations Systems Functions (OSFs) and provides local management functionality to the NE(s)." Section 6.5.1	See claim 1a, above.

ASSERTED CLAIMS			
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correlating the first network accounting record with accounting information available from a second source; and	See claim 1b, above.	The M.3010 specification describes how accounting records from multiple sources can be correlated by means of a mediation function. "Typically, mediation will fulfil one of two roles. To provide management functionality to groups of similar network elements (e.g. modems or transmission equipment, etc.) or..." Section 6.5.1.	See claim 1b, above.
		Figure 25 provides an example overview of this process, where the accounting records are generated by Network Elements (NEs) and subsequently correlated by a Mediation Function (MFs) within a Mediation Device. [See Fig. 25, above]	

ASSERTED CLAIMS			
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using the accounting information with which the first network accounting record is correlated to enhance the first network accounting record.	See claim 1c, above.	The M.3010 specification describes a component, known as an Operations Systems Function (OSF), which is capable of receiving accounting records from multiple Mediation Functions, and subsequently using these accounting records.	See claim 1c, above.
		"The OSF processes information related to the telecommunications management for the purpose of monitoring/coordinating and/or controlling telecommunication functions including management functions (i.e. the TMN itself)." Section 2.1.1.	
		"... the OSF can produce information that was not available from an NEF or another OSF by synthesizing or correlating or by application of expert system rules." Section 6.8.2.	
		The architecture of the components capable of performing correlation and mediation is shown in Figure III.2. [See Fig. III.2, above]	
		"Reporting correlation is required on occasions when a single "event" will be detected by a number of distinct Agents as separate events. This will require that the Manager responsible is able to correlate these separate events so as to detect the underlying "event" which gave rise to them." Section IV.1.	

ASSERTED CLAIMS			
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13. A system for collecting data from network entities for a data consuming application, comprising:	The '443 patent discloses collecting data from network entities for a "data consuming application" if that term means an application that uses data.	The M.3010 specification describes a communications function system for collecting data from multiple network entities, known as Network Elements (NEs).	The M.3010 specification discloses collecting data from network entities for a "data consuming application" (e.g. a mediation component) if that term means an application that uses data.
		"Within a TMN, the communications functions such as protocol conversion and communications relay functions are performed by the Message Communication Function (MCF). The MCF interfaces all function blocks in different equipment and consists of one or more of the following processes: a) communications control – polling; – addressing; – communications networking; – ensuring integrity of data flows. b) protocol conversion c) communications of primitive functions	
		– command/response statement; – alarm statements; – alarm forwarding; – test results/data; – operational measurement data; – upload of status report; – local alarming.", [16], Section 6.4.2. [See Fig. 25, above]	

ASSERTED CLAIMS			
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ASSERTED CLAIMS			
	Additional Shamos opinion re Chapman U.S Patent 5,784,443	Contentions re ITU-T M.3010 Specification	Additional Shamos opinion re ITU-T M.3010 Specification
a plurality of data collectors to receive information from the network entities and to produce records based on the information, each data collector in the plurality of data collectors being associated with and coupled to a different one of the network entities; and	"Each customer use of the network is collected and tagged in a record as an event for each switching device in the network." Abstract. The "network entities, e.g. are the switches. The data collectors of the '443 patent are those portions of the system that collect records from the switches. Local record stores 321 are examples of data collectors.	The M.3010 specification allows for multiple data collectors, known as Message Communication Functions (MCFs), to each receive information from network entities, known as Network Equipment Functions (NEFs).	
		"The MCF is associated with all function blocks having a physical interface. It is used for, and limited to, exchanging management information contained in messages with its peers.", [16], Section 2.2.5.	
		Figure 25 shows how Message Communication Functions are used to receive information, including accounting records, from Network Element Functions (NEFs). The Mediation Function (MFs) within a Mediation Device can subsequently retrieve this information from the Message Communications Functions. [See Fig. 25, above]	

ASSERTED CLAIMS			
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an enhancement component that augments data in one of the records produced by one of the plurality of data collectors with data from a different one of the records produced by another of the plurality of data collectors.	The "enhancement component" is, e.g., that portion of the '443 system that performs the enhancement step of claim 1. To generate a unified bill containing summary information about a plurality of services of different network entities, it is necessay to combine data from different collectors.	The M.3010 specification describes how the mediation component can be used as an enhancement component to augment data in one record with data collected from other records. "Mediation function blocks may store, adapt, filter, threshold and condense information." Section 2.1.4. "These management application functions are the essential and underlying parts of OSFs. They may range from simple to more complex functions such as: ... adding value to raw information, e.g. data concentration, alarm correlation, statistics and performance analysis, ..." Section 2.2.1.2. "The processes that can form mediation can be classified into five general process categories... processes involving data handling – concentration of data; – collection of data; – data formatting; – data translation." Section 6.5.2. "For example, the OSF can produce information that was not available from an NEF or another OSF by synthesizing or correlating or by application of expert system rules." Section 6.8.2.	The "enhancement component" is, e.g., that portion of the mediation component of the M.3010 specification that performs the enhancement step of claim 1. To generate a unified bill containing summary information about a plurality of services of different network entities, it is necessay to combine data from different collectors.

ASSERTED CLAIMS			
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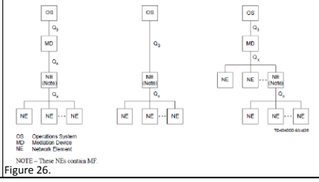
17. The system of claim 13, further comprising: a module coupled to the plurality of data collectors, the module receives the records produced by the plurality of data collectors for aggregation purposes, and wherein the enhancement component resides in the module.	Fig. 5 discloses the claimed module.	The M.3010 specification allows Network Equipment (NE) components, Network Equipment Functions (NEFs), Mediation Devices (MDs), and Mediation Functions (MFs) to operate as data collectors that are capable of correlating records from multiple sources due to its hierarchical design.	The mediation component is, e.g., the claimed module.
		"Mediation can be implemented as a hierarchy of cascaded devices using standard interfaces. The cascading of mediation devices and various interconnection structures between MDs on the one hand and MDs and NEs on the other hand provides for greater flexibility in the TMN. Some options are shown in Figure 26." 6.5.1.	
		 Figure 26.	

ASSERTED CLAIMS			
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		This hierarchical structure is further shown in Figure III.2. [See Fig. III.2, above]	
		The Mediation Device is coupled to the data collecting Network Elements and collects data for aggregation purposes. "Mediation may consist of one or more of these specific processes . . . Processes involving data handling - data concentration - collection of data - data formatting - data translation" Section 6.5.2.	